

Model L™ Ultra-High Efficiency Rooftop Units 60 Hz

Bulletin No. 210937 April 2021

LGM

COMMERCIAL PRODUCT SPECIFICATIONS



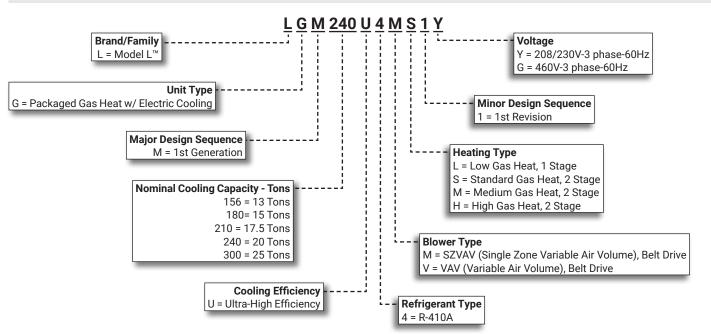




13 to 25 Tons

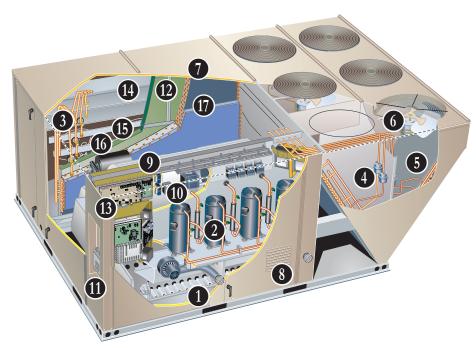
Net Cooling Capacity - 150,000 to 270,000 Btuh Gas Input Heat Capacity - 169,000 to 480,000 Btuh

MODEL NUMBER IDENTIFICATION



FEATURE HIGHLIGHTS

The Model L[™] packaged rooftop line is engineered with advanced variable speed technology to offer some of the highest energy efficiencies in the industry while delivering superior temperature and humidity control in a wide variety of commercial applications.



- 1. Aluminized Steel Inshot Burners
- 2. Variable Capacity Scroll Compressor (1) and Fixed Capacity Scroll Compressors (2 or 3)
- 3. Thermal Expansion Valves
- 4. Filters/Driers
- 5. Condenser Coil
- 6. Variable-Speed ECM Outdoor Coil Fan Motors (4) 156-180 and (6) 210-300
- 7. Heavy-Gauge Steel Cabinet
- 8. Hinged Access Panels
- 9. Supply Air Blower
- 10. Variable Frequency Drive (VFD)
- 11. Disconnect Switch (option)
- 12. Air Filters
- 13. Lennox® CORE Control System
- 14. Economizer (option)
- 15. Downflow Barometric Relief Dampers (option)
- 16. Power Exhaust Fans (option)
- 17. Humiditrol™+ Dehumidification System

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APPROVALS AND WARRANTY

APPROVALS

- · AHRI Standard 340/360 certified
- · ETL and CSA listed
- CSA certified energy ratings
- · Unit and components ETL, NEC, and CEC bonded for grounding to meet safety standards for servicing
- · All models are ASHRAE 90.1 compliant
- · All models meet California Code of Regulations, Title 24 requirements for staged airflow
- ISO 9001 Registered Manufacturing Quality System
- ENERGY STAR® certified

WARRANTY

- Aluminized Steel Heat Exchanger Limited ten years
- · Optional Stainless Steel Heat Exchanger Limited fifteen years
- Compressors Limited five years
- Lennox® CORE Unit Controller Limited three years
- Optional High Performance Economizers Limited five years
- · All other covered components Limited one year

FEATURES AND BENEFITS

HEATING SYSTEM



- · Tubular construction, aluminized steel
- · Life-cycle tested

NOTE - Optional Stainless Steel Heat Exchanger is required if mixed air temperature is below 45°F.

- · Aluminized steel inshot burners
- · Direct spark ignition
- · Electronic flame sensor
- Combustion air inducer
- Redundant automatic dual stage gas valve with manual shut-off

Electronic Pilot Ignition

- Electronic spark igniter provides positive direct ignition of burners on each operating cycle
- Permits main gas valve to stay open only when the burners are proven to be lit
- If loss of flame occurs, gas valve closes, shutting off the gas to the burners
- · LED indicates status and aids in troubleshooting
- Watchguard circuit on module automatically resets ignition controls after one hour of continuous thermostat demand after unit lockout, eliminating nuisance service calls
- Factory installed in the gas heating compartment

Limit Controls

- · Redundant limit controls with fixed temperature setting
- Protects heat exchanger and other components from overheating

Safety Switches

- · Flame roll-out switch
- Flame sensor

- · Combustion air inducer proving switch
- · Protects system operation

Required Selections

Gas Input Choice - Order one:

- Low Gas Heat, 1 Stage (169,000 Btuh)
- Standard Gas Heat, 2 Stage (169,000/260,000 Btuh)
- Medium Gas Heat, 2 Stage (234,000/360,000 Btuh)
- High Gas Heat, 2 Stage (312,000/480,000 Btuh)

NOTE – Two-stage heat models can be operated with four stages of gas heating when controlled in either room sensor, Discharge Air Control, or fresh air tempering mode on the Lennox® CORE Unit Controller (available when using the CS8500 thermostat or when connected to Building Automation Systems using BACnet, LonTalk, or S-Bus protocols). See Gas Heating Specifications table.

Options/Accessories

Factory Installed

Stainless Steel Heat Exchanger

Required if mixed air temperature is below 45°F

Factory or Field Installed

Bottom Gas Piping Kit

- Allows bottom gas entry
- Factory installed kit is furnished with the unit for field installation

Low Temperature Vestibule Heater

- Electric heater automatically controls minimum temperature in gas burner compartment when temperature is below -40°F
- CSA certified to allow operation of unit down to -60°F

HEATING SYSTEM (continued)

Field Installed

Combustion Air Intake Extensions

- Recommended for use with existing flue extension kits in areas where high snow can block intake air
- · Order two kits

LPG/Propane Kits

- Conversion kit to field change over units from Natural Gas to LPG/Propane
- · Order two kits

Vertical Vent Extension Kit

- Use to exhaust flue gases vertically above unit
- Required when unit vent is too close to fresh air intakes per building codes
- · Also prevents ice formation on intake louvers
- Kit contains vent transition, vent tee, drain cap and installation hardware
- **NOTE** Straight vent pipes (4 in. B-Vent) and caps are not furnished and must be field supplied. Refer to kit instructions for additional information.

COOLING SYSTEM

- Designed to maximize sensible and latent cooling performance at design conditions
- System can operate from 0°F to 125°F without any additional controls

R-410A Refrigerant

- · Non-chlorine based
- · Ozone friendly

Multiple Compressors

Cooling system consists of one variable capacity scroll compressor and multiple fixed capacity scroll compressors (two for 156-180 models, three for 210-300 models)

Variable Capacity Scroll Compressor

- · High performance, reliability and quiet operation
- Operates on a variable frequency determined to vary capacity based on the cooling load required

Fixed Capacity Scroll Compressors

- High performance, reliability and quiet operation
- Resiliently mounted on rubber grommets for quiet operation

DC Inverter Control (for Variable Capacity Compressor)

- · Converts AC line voltage into filtered variable DC voltage
- Provides continuous compressor operation, while adjusting the capacity according to discharge air temperature
- Adjusts compressor output in increments as small as 1%
- Prevents frequent changes in capacity and ensures efficient, economical operation
- Power Factor Correction (PFC) circuit monitors the DC bus for high, low and abnormal voltage conditions to protect the compressor

- Two LEDS (red and green) indicate inverter operating status and aid in troubleshooting
- Noise filter reduces unwanted electromagnetic interference (EMI)
- Inverter reactor adds inductance to the line between the inverter and the compressor to limit current rise and protect the compressor

Compressor Crankcase Heaters

 Protects against refrigerant migration that can occur during low ambient operation or during extended off cycles

3 Thermal Expansion Valves

- Ensures optimal performance throughout the application range
- · Removable element head

4 Filter/Driers

 High capacity filter/drier protects the system from dirt and moisture

High Pressure Switches

 Protects the compressors from overload conditions such as dirty condenser coils, blocked refrigerant flow, or loss of outdoor fan operation

Low Pressure Switches

• Protects the compressors from low pressure conditions such as low refrigerant charge, or low/no airflow

Diagnostic and Sensor System

 Multiple thermistors continuously monitor the refrigeration system, providing optimum performance and complete circuit protection at all operating conditions

Indoor Coil Freeze Protection

 Protects the evaporator coil from damaging ice buildup due to conditions such as low/no airflow, or low refrigerant charge

5 Condenser Coil

- Copper tube construction
- Enhanced rippled-edge aluminum fins
- Flared shoulder tubing connections
- · Silver soldered construction

Evaporator Coil

- Copper tube construction
- Enhanced rippled-edge aluminum fins
- · Flared shoulder tubing connections
- Silver soldered construction for improved heat transfer
- · Factory leak tested
- Cross row circuiting with rifled tubing optimizes both sensible and latent cooling capacity

Anti-Microbial Condensate Drain Pan

- Plastic pan, sloped to meet drainage requirements per ASHRAE 62.1
- Anti-Microbial additive resists growth of mold and mildew on drain pan, which improves indoor air quality and reduces drain line blockage
- · Side or bottom drain connections

COOLING SYSTEM (continued)

- 6 Variable-Speed ECM Outdoor Coil Fan Motors
 - Fan speed is directly controlled by the Lennox® CORE Unit Controller
 - Thermal overload protected
 - · Totally enclosed
 - Permanently lubricated ball bearings
 - Shaft up
 - · Wire basket mount

Outdoor Coil Fans

PVC coated fan guards furnished

Required Selections

Cooling Capacity

Specify nominal cooling capacity

Options/Accessories

Factory or Field Installed

Condensate Drain Trap

· Constructed of PVC (factory or field) or copper (field only)

NOTE - Trap is field installed only; PVC version may be factory ordered to ship with unit.

Drain Pan Overflow Switch

- Monitors condensate level in drain pan
- · Shuts down unit if drain becomes clogged

CABINET

Construction

- Heavy-gauge steel panels
- Full perimeter heavy-gauge galvanized steel base rail
- · Base rails have rigging holes
- Three sides of the base rail have forklift slots
- Raised edges around duct and power entry openings in the bottom of the unit for water protection

Airflow Choice

• Units are shipped in downflow (vertical) configuration

NOTE - Units can be field converted to horizontal air flow with optional Horizontal Return Air Panel Kit and Horizontal Roof Curb.

Power/Gas Entry

 Electrical and gas lines can be brought through the unit base or through horizontal access knock-outs

Exterior Panels

- Constructed of heavy-gauge, galvanized steel
- Textured pre-paint with polyurethane finish
- Cyclic salt fog and UV exposure up to 1680 hours per **ASTM D5894**

Insulation

- Fully insulated with non-hygroscopic fiberglass insulation (conditioned areas)
- · Unit base is fully insulated
- · Base insulation serves as an air seal to the roof curb, eliminating the need to add a seal during installation

8 Hinged Access Panels

- · Filter section
- · Blower section
- Heating section
- Compressor/controls section
- · Panel seals and quarter-turn latching handles provide a tight air and water seal

Required Selections

Airflow Configuration

Specify downflow or horizontal

Options/Accessories

Factory Installed

Corrosion Protection

- · Completely flexible immersed coating
- Electrodeposited dry film process
- AST ElectroFin E-Coat
- Meets Mil Spec MIL-P-53084, ASTM B117 Standard Method Salt Spray Testing
 - · Indoor Corrosion Protection:
 - · Coated coil
 - Coated reheat coil (Humiditrol™+)
 - Painted blower housing
 - · Painted indoor base
- Outdoor Corrosion Protection:
 - Coated coil
 - · Painted outdoor base

Field Installed

Combination Coil/Hail Guards

- · Heavy gauge steel frame
- · Painted to match cabinet
- Expanded metal mesh protects outdoor coil

Horizontal Return Air Panel Kit

- Required for horizontal applications with Horizontal Roof Curb
- Contains panel with return air opening for field replacement of existing unit panel and panel to cover bottom return air opening in unit
- · See dimension drawings

BLOWER

A wide selection of supply air blower options are available to meet a variety of airflow requirements

- Overload protected, equipped with ball bearings
- · Belt drive motors are offered on all models and are available in several different sizes to maximize air performance

Motor Efficiency

· All blower motors 5 hp and above meet minimum energy efficiency standards in accordance with the Energy Independence and Security Act (EISA) of 2007

Supply Air Blower

- Forward curved blades
- · Double inlet
- Blower wheel is statically and dynamically balanced
- · Ball bearings
- Adjustable pulley (allows speed change)
- · Blower assembly slides out of unit for servicing
- · Grease fittings furnished

Supply Static Pressure Transducer (VAV Models Only)

- Sends information to the Lennox® CORE Unit Controller to control VFD blower speed
- · Shipped with the unit for remote field installation in the supply duct

Required Selections

Select SZVAV (Single Zone Variable Air Volume) or Variable Air Volume (VAV) Models

- SZVAV (Single Zone Variable Air Volume) modulates the amount of airflow according to cooling demand, heating demand, ventilation demand or smoke alarm
- Variable Air Volume (VAV) modulates the air volume to maintain a constant duct static pressure



- 10 · Utilizes a Variable Frequency Drive (VFD) to modulate the supply blower airflow
 - VFD alters the frequency and voltage of the power supply to the blower to control blower speed
 - The amount of airflow for each stage can be set according to a parameter in the Lennox® CORE unit controller
 - · Unit is shipped from the factory with preset airflows
 - SZVAV can be ordered with or without an Electronic **Bypass Control**
 - If equipped with the bypass control the SZVAV features manual (default) or automatic electronic bypass control of the VFD
 - In case of a VFD malfunction, a VFD alarm is generated by the Lennox® CORE unit controller
 - VFD can be manually bypassed to continue unit operation at full blower speed or the unit controller can be set to automatically switch to full blower speed if a VFD alarm is generated
 - VFD has an operational range of 0 to 125°F outdoor air ambient temperature

· Lower operating costs are obtained when the blower is operated on lower speeds

NOTE - Variable Frequency Drive (VFD) is designed to operate on balanced, three-phase power. Operating units on unbalanced three-phase power will reduce the reliability of all electrical components in the unit. Unbalanced power is a result of the power delivery system supplied by the local utility company. Factory-installed inverters are sized to drive blower motors with an equivalent current rating using balanced threephase power. If unbalanced three-phase power is supplied; the installer must replace the existing factory-installed inverter with an inverter that has a higher current rating to allow for the imbalance. Refer to the installation instructions for additional information and replacement information.

Ordering Information

 Specify motor horsepower and drive kit number when base unit is ordered

Options/Accessories

Factory Installed

Blower Belt Auto-Tensioner

- Provides proper tension to belt drive blower belt without the need for regular adjustments
- Maintains airflow and proper performance

ELECTRICAL

SmartWire[™] System

- Advanced wiring connectors are keyed and color-coded to prevent miswiring
- Wire coloring scheme is standardized across all models
- · Each connection is intuitively labeled to make troubleshooting and servicing quick and easy

Electrical Plugs

 Positive connection electrical plugs connect common accessories or maintenance parts for easy removal or installation

ELECTRICAL (continued)

Phase/Voltage Detection Phase

- Monitors power supply to ensure phase is correct at unit start-up
- If phase is incorrect, the unit will not start and an alarm code is reported to the unit controller
- Protects unit from being started with incorrect phasing which could lead to issues such as compressors running backwards
- Voltage detection monitors power supply voltage to ensure proper voltage
- If voltage is not correct (over/under voltage conditions) the unit will not start and an alarm code is reported to the unit controller

Required Selections

Voltage Choice

Specify when ordering base unit

Options/Accessories

Factory Installed

Circuit Breakers

- HACR type
- · For overload and short circuit protection
- Factory wired and mounted in the power entry panel
- · Current sensitive and temperature activated
- Manual reset

Short-Circuit Current Rating (SCCR)

• Higher short circuit protection up to 100kA

Factory or Field Installed

11 Disconnect Switch

- · Accessible from outside of unit
- · Spring loaded weatherproof cover furnished

GFI Service Outlets (2)

- 115V ground fault circuit interrupter (GFCI) type
- Available non-powered, field-wired or factory-wired and powered

Field Installed

GFI Weatherproof Cover

- Single-gang cover
- Heavy-duty UV-resistant polycarbonate case construction
- Hinged base cover with gasket

INDOOR AIR QUALITY

12 Air Filters

· Disposable 2 inch filters furnished as standard

Options/Accessories

Factory or Field Installed

Healthy Climate® High Efficiency Air Filters

 Disposable MERV 8, MERV 13 or MERV 16 (Minimum Efficiency Reporting Value based on ASHRAE 52.2) efficiency 2-inch pleated filters

Healthy Climate® UVC Germicidal Lamps



- Germicidal lamps emit ultra-violet (UV-C) energy, which has been proven to be effective in reducing microbes such as viruses, bacteria, yeasts, and molds
- This process either destroys the organism or controls its ability to reproduce
- UV-C energy greatly reduces the growth and proliferation of mold and other bioaerosols (bacteria and viruses) on illuminated surfaces (particularly coil and drain pan)
- Installed in the blower/evaporator coil section
- Safety interlock switch automatically shuts off power to the UVC light when panel is removed
- Interlock switch is factory installed or field installed in the blower/evaporator coil section panel
- · All necessary hardware for installation is included
- · Lamps operate on 110/230V, 1 phase power supply

NOTE - Step-down transformer may be ordered for field installed UVC lamps when used with 460V rooftop units. Step-down transformer is furnished with lamps when factory installed.

Approved by ETL

Needlepoint Bipolar Ionization (NPBI) Kit

- NPBI technology integrates with system controls for effective air treatment
- Ionization has been shown to effectively reduce harmful pathogens, pollutants and odors

NOTE - Please visit <u>www.sciencedirect.com</u> for additional information.

- Brush-type ionizer introduces a high concentration of both positive and negative ions into the airstream
- These bipolar ions are then dispersed into the occupied space through the duct system proactively reducing the airborne contaminants
- lons travel within the building air stream and attach to particles, pathogens, and gas molecules, making them larger and easier to capture in the filtration system
- UL 2998 certified for zero ozone emission

Field Installed

Indoor Air Quality (CO2) Sensors

 Monitors CO₂ levels, reports to the Lennox® CORE Unit Controller which adjusts Economizer dampers as needed

Replacement Filter Media Kit With Frame

- · Replaces existing pleated filter media
- Includes washable metal mesh screen and metal frame with clip for holding replaceable non-pleated filter

CONTROL SYSTEM

LENNOX® CORE CONTROL SYSTEM



The Lennox® CORE Control System is designed to accelerate equipment install and service. Standard with all Model L™ rooftop units, control system integrates key technologies that lower installation costs, drive system efficiency, and protect your investments.

13 The Lennox® CORE Unit Controller is a microprocessorbased controller that provides flexible control of all unit functions.

Wireless Service App Connectivity (Coming Soon to Android and iOS)

- Setup menu ensures proper installation and simplified setup of the rooftop unit
- · Detailed data readout updates sensor values in real time and allows trending
- Unit self-test verifies individual critical component and system performance
- · Economizer test function ensures Economizer is operating correctly

NOTE - Android or iOS device required.

Additional Features:

- · Built-In 7-Segment Display shows Unit Status and active alarms for easy troubleshooting
- Buttons for test and clearing delays
- SmartWire[™] System with keyed and removable screw terminals ensure correct field wiring
- Built-in BACnet MS/TP and IP allow open integration to building management systems.
- Two-port Ethernet Switch enables daisy chaining for BACnet IP and automatic firmware updates

NOTE - Unit Internet Connection required.

- Profile setup copies key settings between units with the same configuration to reduce setup time
- USB port allows a technician to download and transfer unit information to help verify service was performed
- USB software updates on the Lennox® CORE Unit Controller enhance functionality without the need to change components
- · Unit Controller Software

Configurable Built-In Functions

- Full modulation of variable speed compressor for discharge air temperature control in room sensor or thermostat mode
- Discharge Air Cooling Control (Standard)
- Up to 3 distinct Cooling Airflows in Thermostat Mode with additional relay.
- · Programmable independent heating, ventilation and cooling blower speeds

- · Discharge Air Heating Control
- Economizer Control Options (See Economizer / Exhaust Air / Outdoor Air sections)
- Exhaust Fan Control Modes for fresh air damper position
- · Configurable Morning Warm-up
- · Night Setback Mode
- Fresh Air Tempering for Improved Ventilation
- · Demand Control Ventilation
- Low Ambient Controls for operation down to 0°F
- Humiditrol™+ Operation (Variable Capacity Hot-Gas Reheat)
- Enhanced Dehumidification (Latent Demand Control without reheat)

Component Protection / Unit Safeguards:

- · Compressor Time-Off Delay
- Adjustable Blower On/Off Delay
- Return Air Temperature Limit Control
- · Safety Switch Input allows Controller to respond to a external safety switch trip
- · Service Relay Output
- Thermostat Bounce Delay
- · Smoke Alarm Mode has four choices (unit off, positive pressure, negative pressure, purge)
- "Strike Three" Protection
- · Gas Valve Time Delay Between First and Second Stage
- Minimum Compressor Run Time

Control Methods / Interfaces:

- · DDC and 24V Thermostat
- · BACnet MS/TP and IP
- LONTalk (Factory and Field Option)
- Lennox SBUS
- · Compatibility with Lennox Wireless Room Sensors
- Zone Temperature Sensor Input
- Dehumidistat and Humidity Sensor Inputs
- Indoor Air Quality Inputs (2)
- · Built-in Control Parameter Defaults
- Permanent Diagnostic Code Storage
- Field Adjustable Control Parameters (Over 200 settings)
- · Multiple Configurable Digital Inputs
- LED Indicators
- PC Interface connects the Lennox® CORE Unit Controller to a PC with the Lennox Unit Controller Software

NOTE - Lennox® CORE Control System features vary with the type of rooftop unit in which the control is installed.

CONTROL SYSTEM

LENNOX® CORE CONTROL SYSTEM (continued)

Control Options

Factory or Field Installed

Blower Proving Switch

Monitors blower operation, shuts down unit if blower fails

Dirty Filter Switch

Senses static pressure increase and issues alarm if necessary

Fresh Air Tempering

- Used in applications with high outside air requirements
- Controller energizes the first stage heat as needed to maintain a minimum supply air temperature for comfort, regardless of the thermostat demand
- When ordered as a factory option, sensor ships with the unit for field installation

Smoke Detector

- · Photoelectric type
- Installed in supply air section, return air section or both sections
- Available with power board and single sensor (supply or return) or power board and two sensors (supply and return)
- Power board located in unit control compartment

Interoperability via BACnet® or LonTalk® Protocols

 Communication compatible with third-party automation systems that support the BACnet Application Specific Controller device profile, LonMark® Space Comfort Controller functional profile, or LonMark Discharge Air Controller functional profile

COMMERCIAL CONTROL SYSTEMS

(Field Installed)

L Connection® Network Control System

- Complete building automation control system for single or multi-zone applications
- Options include local interface, software for local or remote communication, and hardware for networking other control functions
- See L Connection Network Control System Product Specifications Bulletin for details

After-Market DDC

Novar® Unit Controller and options

Thermostats

- Control system and thermostat options, see page 14
- After-Market unit controller options

OPTIONS / ACCESSORIES

ECONOMIZER

- Economizer operation is set and controlled by the Lennox® CORE Unit Controller
- Simple plug-in connections from Economizer to unit controller for easy installation
- All Model L[™] rooftop units are equipped with factory installed CEC Title 24 approved sensors for outside, return and discharge air temperature monitoring
- **NOTE** Optional sensors may be used instead of unit sensors to determine whether outdoor air is suitable for free cooling. See Options/Accessories table.

Factory or Field Installed

14 High Performance Economizer

- Approved for California Title 24 building standards
- Low leakage dampers are Air Movement and Control Association International (AMCA) Class 1A Certified -Maximum 3 CFM per sq. ft. leakage at 1 in. w.g.
- ASHRAE 90.1 and IECC compliant
- Downflow or Horizontal with Outdoor Air Hood
- Outdoor Air Hood with mist elimination is included when Economizer is factory installed and is furnished with Economizer when ordered for field installation
- **NOTE** Downflow or horizontal economizer applications require optional Downflow or Horizontal Barometric Relief Dampers with Exhaust Hood.
- · Gear-driven action
- High torque 24-volt fully-modulating spring return damper motor
- Return air and outdoor air dampers
- Plug-in connections to unit
- Stainless steel bearings
- Enhanced thermoplastic vulcanizate (TPV) seals
- · Flexible stainless steel jamb seals
- **NOTE** High Performance Economizers are not approved for use with enthalpy controls in Title 24 applications.
- NOTE The Free Cooling setpoint for Title 24 applications must be set based on the Climate Zone where the system is installed. See Section 140.4 "Prescriptive Requirements for Space Conditioning Systems" of the California Energy Commission's 2019 Building Energy Efficiency Standards.
- **NOTE** Refer to Installation Instructions for complete setup information.

Differential Sensible Control

- Factory setting
- Uses outdoor air and return air sensors that are furnished with the unit
- The Lennox® CORE Unit Controller compares outdoor air temperature with return air
- When the outdoor air is below the configured setpoint and cooler than return air, the controller activates the Economizer

OPTIONS / ACCESSORIES

ECONOMIZER (continued)

Factory or Field Installed (continued)

NOTE - Differential Sensible Control can be configured in the field to provide Offset Differential Sensible Control or Single Sensible Control.

NOTE - In Offset Differential Sensible Control mode. the Economizer is enabled if the temperature differential (offset) between outdoor air and return air reaches the configured setpoint. In Single Sensible Control mode, the Economizer is enabled when outdoor air temperature falls below the configured setpoint.

Global Control

- The unit controller communicates with a DDC system with one global sensor (enthalpy or sensible)
- Determines whether outside air is suitable for free cooling on all units connected to the control system
- · Sensor must be field provided

Single Enthalpy Temperature Control (Not for Title 24)

• Outdoor air enthalpy sensor enables Economizer if the outdoor enthalpy is less than the setpoint of the control

Differential Enthalpy Control (Not for Title 24)

- Order two Single Enthalpy Controls
- One is field installed in the return air section
- One is installed in the outdoor air section
- · Allows the Economizer control to select between outdoor air or return air, whichever has lower enthalpy

Field Installed

Outdoor Air CFM Control

- · Maintains constant outdoor air volume levels on the supply air fan and varying unit airflows
- · Velocity sensor located in the rooftop unit outdoor air section, the Lennox® CORE Unit Controller changes the Economizer position to help minimize the effect of supply fan speed changes on outdoor air volume levels
- · Setpoint for outdoor air volume is established by field testina

NOTE - Not available with Demand Control Ventilation (CO₂ Sensor) or Building Pressure Control.

Building Pressure Control

- Maintains constant building pressure level
- Includes a static pressure transducer and outdoor static pressure assembly
- Using differential pressure information between the outdoor air and the building air, the Lennox® CORE Unit Controller changes the Economizer position to help maintain a constant building pressure

NOTE - Not available with Demand Control Ventilation (CO₂ Sensor) or Outdoor Air CFM Control.

EXHAUST

Factory or Field Installed



15 Downflow Barometric Relief Dampers

- Allow relief of excess air
- · Aluminum blade dampers prevent blow back and outdoor air infiltration during off cycle
- Exhaust hood is factory installed when dampers are factory installed with Economizer
- Exhaust hood is furnished with dampers when ordered for field installation
- · Bird screen furnished

16 Power Exhaust Fans

- Install internal to unit for downflow applications only with Economizer option
- Provides exhaust air pressure relief
- · Interlocked to run when supply air blower is operating
- Fans run when outdoor air dampers are 50% open (adjustable)
- Motor is overload protected
- Dual propeller type fans are 20 in. diameter
- · Five blades
- Two 1/3 hp motors

NOTE - Requires Economizer with furnished Outdoor Air Hood and Downflow Barometric Relief Dampers.

NOTE - SZVAV (Single Zone Variable Air Volume) and VAV (Variable Air Volume) models are equipped with 2-stage power exhaust fans. Power exhaust operates in 1st stage (one fan) up to 70% of supply air blower speed. Both exhaust fans operate in 2nd stage when supply air blower speed is above 70% (adjustable) of full speed.

Field Installed

Horizontal Barometric Relief Dampers

- For use when unit is configured for horizontal applications requiring an Economizer
- · Allows relief of excess air
- · Aluminum blade dampers prevent blow back and outdoor air infiltration during off cycle
- Field installed in return air duct
- · Bird screen and hood furnished

OPTIONS / ACCESSORIES

OUTDOOR AIR OPTIONS

Factory or Field Installed

Outdoor Air Damper

- Downflow or Horizontal
- · Linked mechanical dampers
- 0 to 25% (fixed) outdoor air adjustable
- · Installs in unit
- · Includes outdoor air hood
- Automatic model features fully modulating spring return damper motor with plug-in connection
- Manual model features parallel blade, gear-driven dampers with adjustable fixed position

ROOF CURBS

Field Installed

- · Nailer strip furnished (downflow only)
- · Mates to unit
- US National Roofing Contractors Approved
- Shipped knocked down

Downflow

Hybrid Roof Curbs

- Interlocking tabs fasten corners together
- · No tools required
- Can also be fastened together with furnished hardware
- · Available in 8, 14, 18, and 24 inch heights

Adjustable Pitch Curb

- Fully adjustable pitch curbs (3/4 in. per foot in any direction) provide a level platform for rooftop units allowing flexible installations on roofs with uneven or sloped angles
- · Interlocking tabs fasten corners together
- · No tools required
- Hardware is furnished to connect upper curb with lower curb
- Available in 14 inch height

Horizontal

- Meet National Roofing Code requirements
- · Converts unit from downflow to horizontal (side) air flow
- · Return air is on unit, supply air is on curb
- See dimension drawings
- Available in 26, 30, 37 and 41 inch heights

NOTE - Requires Horizontal Return Air Panel Kit.

NOTE - Optional Insulation Kit is available to help prevent sweating.

Adaptor Curbs (not shown)

- · Curbs are regionally sourced
- · Dimensions vary based upon the source

NOTE - Contact your local sales representative for a detailed cut sheet with applicable dimensions.

CEILING DIFFUSERS

Field Installed

Ceiling Diffusers (Flush or Step-Down)

- · White powder coat finish on diffuser face and grilles
- · Insulated UL listed duct liner
- Diffuser box has collars for duct connection
- Step-down diffusers have double deflection blades
- · Flush diffusers have fixed blades
- · Provisions for suspending
- Internally sealed to prevent recirculation
- · Removable return air grille
- · Adapts to T-bar ceiling grids or plaster ceilings

Transitions (Supply and Return)

- · Used with diffusers
- · Installs in roof curb
- · Galvanized steel construction
- Flanges furnished for duct connection to diffusers
- Fully insulated

HUMIDITROL™+ DEHUMIDIFICATION SYSTEM OPTION

OVERVIEW

- Factory installed option designed to control humidity
- Humiditrol™+ utilizes advanced control algorithms, variable speed technology and a reheat coil to efficiently control humidity levels independent of room temperature
- Provides dehumidification on demand using ASHRAE 90.1 recommended method for comfort conditioning humidity control
- Unit comes equipped with one row reheat coil and solenoid valve

NOTE - A dehumidification demand from a relative humidity sensor, dehumidistat, a DDC controller or building automation system is required to control humidity

BENEFITS

- Improves indoor air quality
- Discharge air control for overcool protection
- · Adjustable discharge air temperature setpoint
- · Energy efficient dehumidification
- Modulating latent and sensible capacity
- · Helps prevents damage due to high humidity levels
- Improves comfort levels by reducing space humidity levels

OPERATION

No Dehumidification Demand

- The unit will operate conventionally whenever there is a demand for cooling or heating and no dehumidification demand
- Free cooling is only permitted when there is no demand for dehumidification

Dehumidification Demand Only

- Reheat operation will initiate on a dehumidification demand and does not require a cooling demand
- The unit will operate in hot gas reheat dehumidification mode until the relative humidity of the conditioned space is below the setpoint
- A solenoid valve diverts hot gas from the compressor to the reheat coil
- The cooled and dehumidified air from the evaporator is reheated as it passes through the reheat coil
- The de-superheated and partially condensed refrigerant continues to the outdoor condenser coil where condensing is completed
- Unit will continue to operate in this mode until the dehumidification demand is satisfied
- The reheat coil is sized to provide optimal reheat performance without overheating supply air
- The compressor will modulate based on dehumidification load
- The outdoor fans modulate speed to provide discharge air temperature control in reheat mode

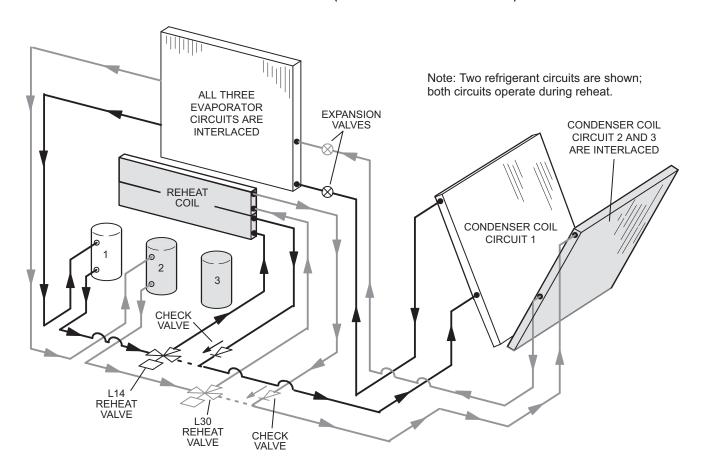
Dehumidification and Cooling Demand (Thermostat/ Room Sensor Application)

- If both a dehumidification and a cooling demand occur, the system will operate in cooling until the cooling demand is satisfied
- Then the system will energize the dehumidification mode

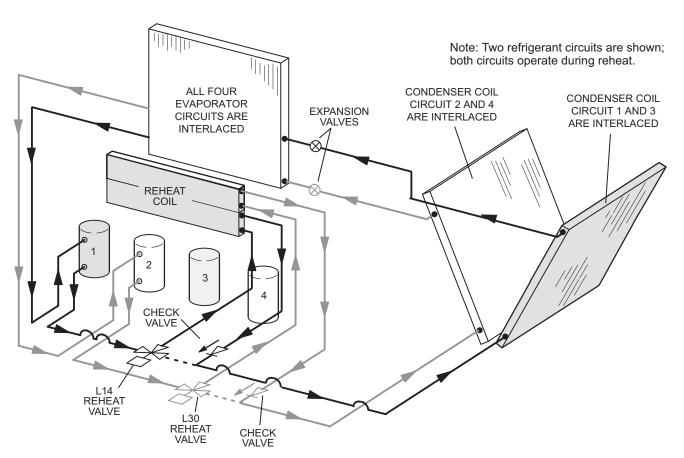
NOTE - See Sequence of Operation for additional information.

HUMIDITROL™+ DEHUMIDIFICATION SYSTEM OPTION

REFRIGERANT SCHEMATIC (156U and 180U MODELS ONLY)



REFRIGERANT SCHEMATIC (210U, 240U and 300U MODELS ONLY)



OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS

ComfortSense® 8500 Commercial 7-Day Programmable Thermostat



- · Fully Communicating Sensor
- Full Color Touchscreen Interface
- Variable Speed System Control (On Compatible Units)
- Up To 4 Heat / 4 Cool
- Built-In Sensors For Temperature, Humidity And Optional CO_2
- Remote Sensor Options For Occupancy, Temperature
- BACnet Capable Options
- · 5-2 or 7-Day Scheduling
- · Smooth Setback Recovery
- · Heat/Cool Auto-Changeover
- Four-Wire Installation
- · FDD, ASHRAE, IECC Compliant

ComfortSense® 7500 Commercial 7-Day Programmable Thermostat



- Premium Universal Thermostat
- Full Color Touchscreen Interface
- Up To 4 Heat / 2 Cool
- Built-In Sensors For Temperature and Humidity
- Remote Sensors Options For Temperature, Discharge Air, Outdoor Air
- 5-2 or 7-Day Scheduling
- Smooth Setback Recovery
- · Heat/Cool Auto-Changeover
- · FDD, ASHRAE, IECC Compliant

ComfortSense® 3000 Commercial 5-2 Day Programmable Thermostat



- · Conventional Multi-Stage Thermostat
- Intuitive Display
- Push-Button Operation
- Up To 2 Heat / 2 Cool
- Built-In Temperature Sensor
- · Remote Temperature Sensing
- Up to 5-2 Day Scheduling
- · Smooth Setback Recovery
- · Heat/Cool Auto-changeover

Wireless/Wired Room Sensor (LCS-5030)



- Simple Push-Button Override
- Variable Speed System Control (On Compatible Units)
- Up To 4 Heat / 4 Cool
- Built-In Temperature and Humidity Sensors
- · AA Battery / 24VAC Powered
- Bluetooth[™] Mesh Operation
- SBUS Wired Operation
- · Automatic Sensor Averaging
- · Locking Hex Screw

Wireless Repeater



- Extends Effective Range of Wireless Sensor
- 24VAC Only
- · Locking Hex Screw

NOTE - Wireless only.

Description		Catalog No.
ComfortSense® 8500 Commercial 7 Day Programmable Therr	nostat	
CS8500 7-Day Thermostat	No CO₂ Sensing	17G75
·	With CO₂ Sensing	17G76
Sensors/Accessories	¹ Remote non-adjustable wall-mount 10k	47W37
	¹ Remote non-adjustable wall-mount 11k	94L61
Sysbus Network Cable (Yellow) for ComfortSense 8500 and L	CS-5030 Wired Room Sensor	
Twisted pair 100% shielded communication cable, Red and Black	500 ft. box	27M19
22 AWG, yellow jacket, rated at 75°C, 300V, Plenum rated	1000 ft. box	94L63
Insulation - Low smoke PVC, NEC, CMP	2500 ft. roll	68M25
ComfortSense® 7500 Commercial 7-Day Programmable Therr	nostat	
CS7500 7-Day Thermostat		17G74
Sensors/Accessories	² Remote non-adjustable wall-mount 20k	47W36
	² Remote non-adjustable wall-mount 10k	47W37
R	emote non-adjustable discharge air (duct mount) 📗	19L22
	Outdoor temperature sensor	X2658
ComfortSense® 3000 Commercial 5-2 Day Programmable The	ermostat	
CS3000 5-2 Day Thermostat		11Y05
Sensors/Accessories F	Remote non-adjustable wall mount 10k averaging	47W37
	Thermostat wall mounting plate	X2659
ComfortSense® Non-Programmable Thermostat		
CS3000 Non-Programmable Thermostat		51M32
Universal Thermostat Guard with Lock (clear)		
	Inside Dimensions (H x W) 5 7/8 x 8 3/8 in.	39P21
Wireless/Wired Room Sensor		
LCS-5030 Wireless/Wired Room Sensor		21L07
Wireless Repeater for Roor	n Sensor - Temperature and humidity, no display	21L09

¹ Up to nine of the same type remote temperature sensors can be connected in parallel.

² Remote wall-mount sensors can be applied in any of the following combinations: One Sensor - (1) 47W36, Two Sensors - (2) 47W37, Three Sensors - (2) 47W36 and (1) 47W37 Four Sensors - (4) 47W36, Five Sensors - (3) 47W36 and (2) 47W37

SEQUENCE OF OPERATION

COOLING

A-Two-Stage Thermostat

1 - Economizer With Outdoor Air Suitable

Y1 Demand

- Compressors Off
- Blower Cooling Low
- Dampers Modulate

NOTE - If dampers are at maximum open for five minutes, blower runs at cooling high.

Y2 Demand

- Compressors Modulate
- Blower Cooling High
- Dampers Maximum Open
- 2 No Economizer or Outdoor Air Not Suitable

Y1 Demand

- Compressors Modulate
- Blower Cooling Low
- Dampers Minimum Position

Y2 Demand

- Compressors Modulate
- Blower Cooling High
- Dampers Minimum Position

B-Three-Stage Thermostat

1 - Economizer With Outdoor Air Suitable

Y1 Demand

- Compressors Off
- Blower Cooling Low
- Dampers Modulate

NOTE - If dampers are at maximum open for five minutes, blower runs at cooling intermediate.

Y2 Demand

- Compressors Modulate
- Blower Cooling Intermediate
- Dampers Maximum Open

Y3 Demand

- Compressors Modulate
- Blower Cooling High
- Dampers Maximum Open

SEQUENCE OF OPERATION

COOLING (CONTINUED)

2 - No Economizer or Outdoor Air Not Suitable

Y1 Demand

- Compressors Modulate
- Blower Cooling Low
- Dampers Minimum Position

Y2 Demand

- Compressors Modulate
- Blower Cooling Intermediate
- Dampers Minimum Position

Y3 Demand

- Compressors Modulate
- Blower Cooling High
- Dampers Minimum Position

C - Room Sensor

- 1 Economizer With Outdoor Air Suitable
 - Compressors Off
 - Blower Modulates
 - Dampers Modulate

NOTE - If dampers are at maximum open for five minutes, compressors are energized and the blower modulates.

- 2 No Economizer or Outdoor Air Not Suitable
 - Compressors Modulate
 - Blower Modulates
 - Dampers Minimum Position

NOTE - Free cooling is locked out when a dehumidification demand is received. The unit operates in dehumidification.

HEATING

NOTE - Heating Mode can be set to 2 stage in thermostat mode or at 4 stage in room sensor mode control options.

2 STAGE OPERATION:

W1 Demand:

 Both gas valves are open on Low Fire (stage 1 on units with 2-stage gas valves) and supply air blower operates at heating speed

W2 Demand:

 Both gas valves are open on High Fire (stage 2 on units with 2-stage gas valves) and supply air blower operates at heating speed

4 STAGE OPERATION:

W1 Demand:

• Left heat exchanger gas valve is open on Low Fire (stage 1 on units with 4-stage gas valves) and supply air blower operates at heating speed

W2 Demand:

 Both gas valves are open on Low Fire (stage 2 on units with 4-stage gas valves) and supply air blower operates at heating speed

W3 Demand:

• Left heat exchanger gas valve will open on High Fire and the right heat exchanger will remain open on Low Fire (stage 3 on units with 4-stage gas valves) and supply air blower operates at heating speed

W4 Demand:

 Both gas valves are open on High Fire (stage 4 on units with 4-stage gas valves) and supply air blower operates at heating speed

SEQUENCE OF OPERATION

HUMIDITROL™+

A - Thermostat Mode With 24V Humidistat

Dehumidification Demand (DI4) and No Cooling Demand

Compressor 1 operates at 100% and reheat valve is energized, blower and outdoor fans modulate to maintain indoor coil and discharge air temperatures, all other compressors are off.

NOTE: After 5 minutes of only a Dehumidification demand (DI4), compressor 2 is turned on and reheat valve in energized. Y1 and DI4 Demand

Compressors are modulating, blower is on cooling low, and the reheat valves are de-energized.

Y2 and DI4 Demand

Compressors are modulating, blower is on cooling high, and the reheat valves are de-energized.

B - Thermostat Mode With Zone Relative Humidity Sensor

Dehumidification Demand (RH% Setpoint < Zone RH% < RH% Setpoint +2%) and No Cooling Demand

Compressor 1 modulates based on zone relative humidity, blower and outdoor fans modulate to maintain indoor coil and discharge air temperatures, reheat valve is energized. All other compressors are off.

Dehumidification Demand (RH% Setpoint < Zone RH% for 5 minutes or Zone RH% > RH% Setpoint +2%) and No Cooling Demand

Compressor 1 modulates based on zone relative humidity and reheat valve is energized, Compressor 2 is on and reheat valve is energized, blower and outdoor fans modulate to maintain indoor coil and discharge air temperatures. All other compressors are off.

Y1 and Dehumidification Demand

Compressors are modulating, blower is on low, and the reheat valves are de-energized.

Y2 and Dehumidification Demand

Compressors are modulating, blower is on high, reheat valves are de-energized.

C - Room Sensor Mode With 24V Humidistat

Dehumidification Demand (DI4) and No Cooling Demand

Compressor 1 operates at 100%, blower and outdoor fans modulate to maintain indoor coil and discharge air temperatures, reheat valve is energized.

NOTE: After 5 minutes of only a Dehumidification demand (DI4), compressor 2 is turned on and the reheat valve is energized.

Cooling and Dehumidification Demand

Compressors are modulating, blower is modulating, reheat valves are de-energized.

D - Room Sensor Mode With Zone Relative Humidity Sensor

Dehumidification Demand (RH% Setpoint < Zone RH% < RH% Setpoint +2%) and No Cooling Demand

Compressor 1 modulates based on zone relative humidity, blower and outdoor fans modulate to maintain indoor coil and discharge air temperatures, reheat valve is energized. All other compressors are off.

Dehumidification Demand (RH% Setpoint < Zone RH% for 5 minutes or Zone RH% > RH% Setpoint +2%) and No Cooling Demand

Compressor 1 modulates based on zone relative humidity and reheat valve is energized, Compressor 2 is on and reheat valve is energized, blower and outdoor fans modulate to maintain indoor coil and discharge air temperatures. All other compressors are off.

Cooling and Dehumidification Demand

Compressors are modulating, blower is modulating, and the reheat valves are de-energized.

Item Description	Catalog		Unit	Mode	el No		
nem description		Number	156	180	210	240	300
COOLING SYSTEM							
Condensate Drain Trap	PVC	22H54	ОХ	OX	ОХ	ОХ	OX
	Copper	76W27	Х	Х	Χ	Х	Х
Corrosion Protection		Factory	0	0	0	0	0
Drain Pan Overflow Switch		21Z07	ОХ	OX	OX	OX	O
Refrigerant Type		R-410A	0	0	0	0	0
Service Valves (not for Humiditrol [™] + equipped units)		Factory	0	0	0	0	0
HEATING SYSTEM							
Bottom Gas Piping Kit		85M31	ОХ	ОХ	ОХ	ОХ	0>
Combustion Air Intake Extensions (order two)		89L97	Х	Χ	Χ	Х	Χ
Gas Heat Input	Low - 169,000 Btuh	Factory	0	0	0		
	Standard - 260,000 Btuh	Factory	0	0	0	0	0
	Medium - 360,000 Btuh	Factory	0	0	0	0	0
	High - 480,000 Btuh	Factory		0	0	0	0
Low Temperature Vestibule Heater	208/230V-3ph	13X66	OX	OX	OX	OX	OX
	460V-3ph	13X67	OX	OX	OX	OX	OX
LPG/Propane Conversion Kits	Low Heat	14N28	X	Х	Х		
(Order 2 kits)	Standard Heat	14N28	X	Х	Х	Х	Х
	Medium Heat	14N29	Х	Х	Х	Х	Х
	High Heat	14N30		X	X	X	X
Stainless Steel Heat Exchanger		Factory	0	0	0	0	0
Vertical Vent Extension Kit (Order two kits)		42W16	Х	Х	Х	Х	X
BLOWER - SUPPLY AIR							
Blower Option			_		_	_	
SZVAV (Single Zone Variable Air Volume	, ,,	Factory	0	0	0	0	0
SZVAV (Single Zone Variable Air Volume) -		Factory	0	0	0	0	0
VAV (Variable Air Volume) -		Factory	0	0	0	0	0
	ive (standard efficiency) - 2 hp	Factory	0				
	ive (standard efficiency) - 3 hp	Factory	0	0	0		
	ive (standard efficiency) - 5 hp	Factory	0	0	0	0	0
	e (standard efficiency) - 7.5 hp	Factory		0	0	0	0
	e (standard efficiency) - 10 hp	Factory			0	0	0
Drive Kits	Kit #1 535-725 rpm	Factory	0	0	0		
See Blower Data Tables for usage and selection	Kit #2 710-965 rpm	Factory	0	0	0		
	Kit #3 685-856 rpm	Factory	0	0	0	0	0
	Kit #4 850-1045 rpm	Factory	0	0	0	0	0
	Kit #5 945-1185 rpm	Factory	0	0	0	0	0
	Kit #6 850-1045 rpm	Factory		0	0		0
	Kit #7 945-1185 rpm	Factory		0	0	0	0
	Kit #8 1045-1285 rpm	Factory		0	0	0	0
	Kit #10 1045-1285 rpm	Factory Factory				0	0
	Kit #11 1135-1365 rpm	•			0		
NOTE Catalog numbers shown are for ordering entional accessories if a field	Blower Belt Auto-Tensioner	Factory	0	0	0	0	0

 ${\sf NOTE-Catalog\ numbers\ shown\ are\ for\ ordering\ optional\ accessories\ if\ a\ field\ installed\ option\ is\ available.}$

OX - Configure To Order (Factory Installed) or Field Installed

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OPTIONS / ACCES	SORIES						
Itam Deceription	Catalog		Unit	Mode	el No		
Item Description	Number	156	180	210	240	300	
CONTROLS							
Blower Proving Switch		21Z10	ОХ	ОХ	OX	ОХ	ОХ
Commercial	LonTalk® Module - For Lennox® CORE Control System	54W27	ОХ	ОХ	ОХ	ОХ	ОХ
Controls	Novar® LSE	Factory	0	0	0	0	0
	L Connection® Building Automation System		Х	Х	Χ	Χ	Χ
Dirty Filter Switch		53W68	ОХ	OX	OX	OX	ОХ
Fresh Air Tempering		21Z08	ОХ	OX	OX	OX	OX
Smoke Detector - Supply o	r Return (Power board and one sensor)	83W40	ОХ	OX	OX	OX	OX
Smoke Detector - Supply a	nd Return (Power board and two sensors)	83W41	ОХ	OX	OX	OX	OX
INDOOR AIR QUALITY							
Air Filters							
Healthy Climate® High Effic	iency Air Filters MERV 8 (Order 6)	54W67	ОХ	OX	OX	OX	OX
24 x 24 x 2 in.	MERV 13 (Order 6)	52W40	ОХ	OX	OX	OX	OX
	MERV 16 (Order 6)	21U42	ОХ	OX	OX	OX	OX
Replacement Media Filter V 24 x 24 x 2 in. (includes no	,	44N61	X	Х	Х	Х	Х
Indoor Air Quality (CO2) S	Sensors						
Sensor - Wall-mount, off-wh	nite plastic cover with LCD display	77N39	Х	Х	Χ	Χ	X
Sensor - Wall-mount, off-wh	nite plastic cover, no display	87N53	Х	Х	Х	Х	Χ
· · · · · · · · · · · · · · · · · · ·	with LCD display, rated for plenum mounting	87N52	Х	Х	Χ	Х	Х
Sensor - Wall-mount, black	plastic case, no display, rated for plenum mounting	87N54	Х	Х	Х	Х	X
CO₂ Sensor Duct Mounting	Kit - for downflow applications	85L43	Х	Х	Х	Х	X
Aspiration Box - for duct mo (87N53 or 77N39)	unting non-plenum rated CO₂ sensors	90N43	X	Х	X	Х	X
Needlepoint Bipolar Ioniz	ation (NPBI)						
Needlepoint Bipolar Ionizat	ion (NPBI) Kit	21U37	ОХ	OX	OX		
		21U38				OX	
		21U39					ОХ
UVC Germicidal Light Kit							
¹ Healthy Climate® UVC Lig	ht Kit (110/230v-1ph)	21A94	ОХ	OX	OX	OX	OX
Step-Down Transformer	460V primary, 230V secondary	10H20	X	X	X	Х	X
ELECTRICAL							
Voltage 60 Hz	208/230V - 3 phase	Factory	0	0	0	0	0
	460V - 3 phase	Factory	0	0	0	0	0
HACR Circuit Breakers	Factory	0	0	0	0	0	
² Short-Circuit Current Ratio	Factory	0	0	0	0	0	
Disconnect Switch	80 amp	ОХ	ОХ	OX	OX	OX	
(see Disconnect Table for u	150 amp	ОХ	OX	ОХ	OX	OX	
		250 amp					OX
GFI Service	15 amp non-powered, field-wired (208/230V, 460V)	74M70	ОХ	ОХ	ОХ	OX	ОХ
Outlets	15 amp factory-wired and powered (208/230V, 460V)	Factory	0	0	0	0	0
Weatherproof Cover for GF	10C89	X	Х	Χ	Χ	Х	

¹ Lamps operate on 110-230V single-phase power supply. Step-down transformer may be ordered separately for field installation in 460V rooftop units (transformer is furnished for factory installed lamp kit). Alternately, a separate 110V power supply may be used to directly power the UVC ballast(s).

 ${\sf NOTE-Catalog\ numbers\ shown\ are\ for\ ordering\ optional\ accessories\ if\ a\ field\ installed\ option\ is\ available.}$

² Disconnect Switch not available with higher SCCR option.

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Item Description	Catalog	Unit Model No					
item bescription	Number	156	180	210	240	30	
ECONOMIZER							
High Performance Economizer (Approved for California Title 24 Building Standard	s AMCA Clas	s 1A (Certific	ed)			
High Performance Economizer Downflow or Horizontal - Includes Outdoor Air Hood.	22J18	ОХ	ОХ	ОХ	ОХ	0)	
NOTE - Order Downflow or Horizontal Barometric Relief Dampers separately.							
Economizer Controls							
Differential Enthalpy (Not for Title 24) Order	2 21Z09	ОХ	ОХ	OX	OX	0)	
Sensible Control Sensor is Furnishe	ed Factory	0	0	0	0	0	
Single Enthalpy (Not for Title 24)	21Z09	ОХ	OX	OX	ОХ	0)	
Global Control Sensor Field Provide	ed Factory	0	0	0	0	0	
Building Pressure Control	13J77	Х	Х	X	Х	X	
Outdoor Air CFM Control	13J76	Х	Х	Х	Х	X	
Barometric Relief Dampers With Exhaust Hood (required with economizer)							
Downflow Barometric Relief Dampers	54W78	ОХ	ОХ	ОХ	ОХ	0)	
Horizontal Barometric Relief Dampers	16K99	Х	Х	Х	Х	X	
OUTDOOR AIR							
Outdoor Air Dampers With Outdoor Air Hood							
Motorized	22J27	ОХ	ОХ	ОХ	ОХ	0)	
Manual	13U05	ОХ	ОХ	ОХ	ОХ	0)	
POWER EXHAUST (DOWNFLOW APPLICATIONS ONLY)		•					
Standard Static, SCCR Rated 208/230	∨ 22H90	ОХ	ОХ	ОХ	ОХ	0)	
460	∨ 22H91	ОХ	ОХ	ОХ	ОХ	0)	
HUMIDITROL™+ HOT GAS REHEAT OPTION - SZVAV MODELS ONLY							
Humiditrol+ Dehumidification Option	Factory	0	0	0	0	0	
CABINET							
Combination Coil/Hail Guards	13T12	Х	Х	Χ	Х	X	
¹ Field installed Power Exhaust requires Economizer with Outdoor Air Hood and Downflow Barometric Relief Dai	more with Exhaus	411					

¹ Field installed Power Exhaust requires Economizer with Outdoor Air Hood <u>and</u> Downflow Barometric Relief Dampers with Exhaust Hood. Must be ordered separately.

NOTE - Catalog numbers shown are for ordering optional accessories if a field installed option is available.

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OPTIONS / ACCESSORIES							
Item Description	Catalog		Unit	Mode	el No		
nem bescription	Number	156	180	210	240	300	
ROOF CURBS							
Hybrid Roof Curbs, Downflow							
8 in. height		11F58	Х	Х	Х	Х	Х
14 in. height		11F59	Х	Х	Х	Х	X
18 in. height		11F60	Х	X	X	Х	X
24 in. height		11F61	Х	X	X	Х	X
Adjustable Pitch Curb							
14 in. height		43W26	Х	Х	Х	Х	Х
Standard Roof Curbs, Horizontal - Requires Horizontal Return Air Pa	anel Kit						
26 in. height - slab applications		11T89	Х	Х	Х	Х	
30 in. height - slab applications		11T90					Х
37 in. height - rooftop applications		11T96	Х	Х	Х	Х	
41 in. height - rooftop applications		11T97					Х
Insulation Kit For Standard Horizontal Roof Curbs							
for 26 in. height curb		73K32	Х	X	X	Х	
for 30 in. height curb		73K33					Х
for 37 in. height curb		73K34	Х	Х	Х	Х	
for 41 in. height curb		73K35					Х
Horizontal Return Air Panel Kit							
Required for Horizontal Applications with Roof Curb		87M00	Х	Х	X	Х	Х
CEILING DIFFUSERS							
Step-Down - Order one	RTD11-185S	13K63	Х	Х			
	RTD11-275S	13K64			Х	Х	Х
Flush - Order one	FD11-185S	13K58	Х	Х			
	FD11-275S	13K59			Х	Х	Х
Transitions (Supply and Return) - Order one	C1DIFF33C-1	12X68	Х	Х			
	C1DIFF34C-1	12X70			Х	Х	Х

NOTE - Catalog numbers shown are for ordering optional accessories if a field installed option is available.

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SPECIFICA	ATIONS		13 TON
General Data	Nominal Tonnage	13 Ton	13 Ton
	Model Number	LGM156U4M	LGM156U4V
	Efficiency Type	Ultra-High	Ultra-High
	Blower Type	SZVAV	VAV
		(Single Zone	(Variable Air
		Variable Air Volume)	Volume)
Cooling	Gross Cooling Capacity - Btuh	154,000	154,000
Performance	¹ Net Cooling Capacity - Btuh	150,000	150,000
	¹ AHRI Rated Air Flow - cfm	4250	4250
	Total Unit Power - kW	12.5	12.5
	¹ IEER (Btuh/Watt)	19.0	18.5
	¹ EER (Btuh/Watt)	12.0	12.0
Refrigerant	Refrigerant Type	R-410A	R-410A
Charge	Without Reheat Circuit 1	16 lbs. 12 oz.	16 lbs. 12 oz.
	Circuit 2	9 lbs. 9 oz.	9 lbs. 9 oz.
	Circuit 3	9 lbs. 8 oz.	9 lbs. 8 oz.
	With Reheat Circuit 1	21 lbs. 3 oz.	
	Circuit 2	12 lbs. 8 oz.	
	Circuit 3	9 lbs. 8 oz.	
Gas Heating O	ptions Available	See pa	age 26
Compressor T			acity Scroll (1)
•	, ,		city Scroll (2)
Outdoor Coils	Net face area (total) - sq. ft.	55.2	55.2
	Tube diameter - in.	3/8	3/8
	Number of rows	2	2
	Fins per inch	20	20
Outdoor Coil	Motor - (No.) horsepower	(4) 1/3 ECM	(4) 1/3 ECM
Fans	Motor rpm	450-1075	450-1075
	Total Motor watts	155 - 1150	155 - 1150
	Diameter - (No.) in.	(4) 24	(4) 24
	Number of blades	3	3
	Total Air volume - cfm	16,000	16,000
Indoor Coils	Net face area (total) - sq. ft.	21.40	21.40
	Tube diameter - in.	3/8	3/8
	Number of rows	3	3
	Fins per inch	14	14
	Drain connection - No. and size	(1) 1 in. FPT	(1) 1 in. FPT
	Expansion device type	· /	/, removable head
² Indoor	Nominal motor output		, hp, 5 hp
Blower	Max. usable motor output (US)		hp, 5.75 hp
and	Motor - Drive kit number		hp
Drive			5-725 rpm
Selection			0-965 rpm
			hp .
		Kit 1 535	i-725 rpm
		Kit 2 710	9-965 rpm
		5	hp
			5-856 rpm
		Kit 4 850-	-1045 rpm
			-1185 rpm
	Blower wheel nominal D x W - in.	(2) 15 x 15 in.	(2) 15 x 15 in.
Filters	Type of filter	Fiberglass,	disposable
	Number and size - in.	(6) 24 >	< 24 x 2
Electrical chai	racteristics	208/230V or 460V	- 60 hertz - 3 phase

NOTE - Net capacity includes evaporator blower motor heat deduction. Gross capacity does not include evaporator blower motor heat deduction.

NOTE – Blower motor service factor = 1.0.

¹ AHRI Certified to AHRI Standard 340/360; 95°F outdoor air temperature and 80°F db/67°F wb entering evaporator air; minimum external duct static pressure.

² Using total air volume and system static pressure requirements determine from blower performance tables rpm and motor output required. Maximum usable output of motors furnished are shown. In Canada, nominal motor output is also maximum usable motor output. If motors of comparable output are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

SPECIFIC	ATIONS			15 TC	ON 17.5 TON		
General Data	Nominal Tonnage	15 Ton	15 Ton	17.5 Ton	17.5 Ton		
	Model Number	LGM180U4M	LGM180U4V	LGM210U4M	LGM210U4V		
	Efficiency Type	Ultra-High	Ultra-High	Ultra-High	Ultra-High		
	Blower Type	SZVAV	VAV	SZVAV	VAV		
		(Single Zone	(Variable Air	(Single Zone	(Variable Air		
		Variable Air Volume)	Volume)	Variable Air Volume)	Volume)		
Cooling	Gross Cooling Capacity - Btuh	176,000	176,000	206,000	206,000		
Performance	¹ Net Cooling Capacity - Btuh	172,000	172,000	200,000	200,000		
	¹ AHRI Rated Air Flow - cfm	5250	5250	5400	5400		
	Total Unit Power - kW	14.3	14.3	16.7	16.7		
	¹ IEER (Btuh/Watt)	19.0	17.5	18.8	18.0		
	¹ EER (Btuh/Watt)	12.0	12.0	12.0	12.0		
Refrigerant	Refrigerant Type	R-410A	R-410A	R-410A	R-410A		
Charge	Without Reheat Circuit 1	19 lbs. 14 oz.	19 lbs. 14 oz.	10 lbs. 8 oz.	10 lbs. 8 oz.		
· ·	Circuit 2	10 lbs. 15 oz.	10 lbs. 15 oz.	9 lbs. 10 oz.	9 lbs. 10 oz.		
	Circuit 3	10 lbs. 6 oz.	10 lbs. 6 oz.	9 lbs. 10 oz.	9 lbs. 10 oz.		
	Circuit 4			9 lbs. 12 oz.	9 lbs. 12 oz.		
	With Reheat Circuit 1	22 lbs. 2 oz.		10 lbs. 8 oz.			
	Circuit 2	12 lbs. 6 oz.		11 lbs. 0 oz.			
	Circuit 3	10 lbs. 6 oz.		9 lbs. 10 oz.			
	Circuit 4	10 103. 0 02.		9 lbs. 12 oz.			
Gas Hoating C	Options Available			age 26			
	Type (number)	Variable Capa		Variable Capa	city Scroll (1)		
Compressor	Type (Humber)	Fixed Capac		Fixed Capac			
Outdoor Coils	Net face area (total) - sq. ft.	55.2	55.2	55.2	55.2		
(Fin/Tube)	Tube diameter - in.	3/8	3/8	3/8	3/8		
(Fill/Tube)	Number of rows	2	2	2	2		
	Fins per inch	20	20	20	20		
Outdoor Coil	Motor - (No.) horsepower	(4) 1/3 ECM	(4) 1/3 ECM	(6) 1/3 ECM	(6) 1/3 ECM		
Fans	` , .	280-1075	280-1075	640-950	640-950		
гань	Motor rpm Total Motor watts			290 -1250			
		150 -1350	150 -1350		290 -1250		
	Diameter - (No.) in. Number of blades	(4) 24	(4) 24 3	(6) 24	(6) 24 3		
				_			
Indoor Coils	Total Air volume - cfm	16,000	16,000	18,600	18,600		
indoor Colls	Net face area (total) - sq. ft.	21.40	21.40	21.40	21.40		
	Tube diameter - in.	3/8	3/8	3/8	3/8		
	Number of rows	3	3	4	4		
	Fins per inch	14	14	14	14		
	Drain connection - No. and size	(1) 1 in. FPT	(1) 1 in. FPT	(1) 1 in. FPT	(1) 1 in. FPT		
21.1	Expansion device type			/, removable head			
² Indoor	Nominal motor output			np, 7.5 hp			
Blower	Max. usable motor output (US)			5 hp, 8.62 hp			
and	Motor - Drive kit number			5-725 rpm			
Drive)-965 rpm			
Selection				hp			
				5-856 rpm			
		Kit 4 850-1045 rpm					
		Kit 5 945-1185 rpm					
		7.5 hp					
				-1045 rpm			
				-1185 rpm			
				5-1285 rpm			
	Blower wheel nominal D x W - in.			5 x 15			
Filters	Type of filter			, disposable			
	Number and size - in.	(6) 24 x 24 x 2					
Electrical cha				- 60 hertz - 3 phase			
NOTE - Net canad	city includes evanorator blower motor heat de	duction Gross canacity dos	e not include evanorator h	lower motor heat deduction			

NOTE - Net capacity includes evaporator blower motor heat deduction. Gross capacity does not include evaporator blower motor heat deduction.

NOTE – Blower motor service factor = 1.0.

¹ AHRI Certified to AHRI Standard 340/360; 95°F outdoor air temperature and 80°F db/67°F wb entering evaporator air; minimum external duct static pressure.

² Using total air volume and system static pressure requirements determine from blower performance tables rpm and motor output required. Maximum usable output of motors furnished are shown. In Canada, nominal motor output is also maximum usable motor output. If motors of comparable output are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

SPECIFICA				1	TON 25 TON		
General Data	Nominal Tonnage	20 Ton	20 Ton	25 Ton	25 Ton		
	Model Number	LGM240U4M	LGM240U4V	LGM300U4M	LGM300U4V		
	Efficiency Type	Ultra-High	Ultra-High	Ultra-High	Ultra-High		
	Blower Type	SZVAV	VAV	SZVAV	VAV		
		(Single Zone	(Variable Air	(Single Zone	(Variable Air		
		Variable Air Volume)	Volume)	Variable Air Volume)	Volume)		
Cooling	Gross Cooling Capacity - Btuh	235,000	235,000	277,000	277,000		
Performance	¹ Net Cooling Capacity - Btuh	228,000	228,000	270,000	270,000		
	¹ AHRI Rated Air Flow - cfm	6000	6000	7400	7400		
	Total Unit Power - kW	19.0	19.0	19.0	19.0		
	¹ IEER (Btuh/Watt)	18.4	17.5	17.5	16.5		
	¹ EER (Btuh/Watt)	12.0	12.0	10.6	10.6		
Refrigerant	Refrigerant Type	R-410A	R-410A	R-410A	R-410A		
Charge	Without Reheat Circuit 1	12 lbs. 2 oz.	12 lbs. 2 oz.	12 lbs. 8 oz.	12 lbs. 8 oz.		
	Circuit 2	12 lbs. 7 oz.	12 lbs. 7 oz.	11 lbs. 8 oz.	11 lbs. 8 oz.		
	Circuit 3	12 lbs. 0 oz.	12 lbs. 0 oz.	14 lbs. 8 oz.	14 lbs. 8 oz.		
	Circuit 4	12 lbs. 10 oz.	12 lbs. 10 oz.	11 lbs. 8 oz.	11 lbs. 8 oz.		
	With Reheat Circuit 1	13 lbs. 4 oz.		17 lbs. 2 oz.			
	Circuit 2	13 lbs. 12 oz.		17 lbs. 5 oz.			
	Circuit 3	12 lbs. 0 oz.		14 lbs. 8 oz.			
	Circuit 4	12 lbs. 10 oz.		11 lbs. 8 oz.			
Gas Heating O	ptions Available		See p	age 26			
Compressor T	ype (number)		Variable Cap	acity Scroll (1)			
			Fixed Capa	city Scroll (3)			
Outdoor Coils	Net face area (total) - sq. ft.	55.2	55.2	55.2	55.2		
(Fin/Tube)	Tube diameter - in.	3/8	3/8	3/8	3/8		
	Number of rows	3	3	3	3		
	Fins per inch	20	20	20	20		
Outdoor Coil	Motor - (No.) horsepower	(6) 1/3 ECM	(6) 1/3 ECM	(6) 1/3 ECM	(6) 1/3 ECM		
Fans	Motor rpm	450 - 950	450 - 950	515 - 1000	515 - 1000		
	Total Motor watts	130 -1530	130 -1530	180 - 1730	180 - 1730		
	Diameter - (No.) in.	(6) 24	(6) 24	(6) 24	(6) 24		
	Number of blades	3	3	3	3		
	Total Air volume - cfm	18,000	18,000	18,300	18,300		
Indoor Coils	Net face area (total) - sq. ft.	21.40	21.40	21.40	21.40		
	Tube diameter - in.	3/8	3/8	3/8	3/8		
	Number of rows	4	4	4	4		
	Fins per inch	14	14	14	14		
	Drain connection - No. and size	(1) 1 in. FPT	(1) 1 in. FPT	(1) 1 in. FPT	(1) 1 in. FPT		
	Expansion device type		Balance port TX\	/, removable head			
² Indoor	Nominal motor output		5 hp, 7.5	hp, 10 hp			
Blower	Max. usable motor output (US)		· · · · · · · · · · · · · · · · · · ·	2 hp, 11.5 hp			
and	Motor - Drive kit number		5	hp			
Drive			Kit 3 688	5-856 rpm			
Selection			Kit 4 850	-1045 rpm			
			Kit 5 945	i-1185 rpm			
				5 hp			
				-1045 rpm			
				-1185 rpm			
		Kit 8 1045-1285 rpm					
				hp			
				5-1185 rpm			
				5-1285 rpm			
	B			5-1365 rpm			
	Blower wheel nominal D x W - in.	(2) 15 x 15					
Filters	Type of filter	Fiberglass, disposable					
	Number and size - in.			x 24 x 2			
Electrical chai				- 60 hertz - 3 phase			
NOTE Not sones	ity includes evanorator blower motor heat de	dki O	and the second s				

NOTE - Net capacity includes evaporator blower motor heat deduction. Gross capacity does not include evaporator blower motor heat deduction.

NOTE - Blower motor service factor = 1.0.

¹ AHRI Certified to AHRI Standard 340/360; 95°F outdoor air temperature and 80°F db/67°F wb entering evaporator air; minimum external duct static pressure.

² Using total air volume and system static pressure requirements determine from blower performance tables rpm and motor output required. Maximum usable output of motors furnished are shown. In Canada, nominal motor output is also maximum usable motor output. If motors of comparable output are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

SPECIFICA	SPECIFICATIONS - GAS HEAT									
Usage Data	Usage Data Model Number		LGM156 LGM180 LGM210	LGN LGN LGN	1156 1180 1210 1240 1300	LGM180 LGM210 LGM240 LGM300				
		Heat Input Type	Low (L)	Standard (S)	Medium (M)	High (H)				
	Number of	Gas Heat Stages	1	2	2	2				
Gas Heating	Input - Btuh	First Stage	169,000	169,000	234,000	312,000				
Performance		Second Stage	N/A	260,000	360,000	480,000				
(Two-Stage)	Output - Btuh	First Stage	135,000							
		Second Stage	N/A	208,000	288,000	384,000				
¹ Gas Heating	Input - Btuh	First Stage	N/A	84,500	117,000	156,000				
Performance		Second Stage	N/A	169,000	234,000	312,000				
(Four-Stage)			Third Stage	N/A	214,000	297,000	396,000			
		Fourth Stage	N/A	260,000	360,000	480,000				
	Output - Btuh	First Stage	135,000							
		Second Stage	N/A							
		Third Stage	N/A							
		Fourth Stage	N/A	208,000	288,000	384,000				
	Temperature	Rise Range - °F	15 - 45	15 - 45	30 - 60	40 - 70				
Thermal Efficiency			80.0%	80.0%	80.0%	80.0%				
Gas Supply Connections			1 in. npt	1 in. npt	1 in. npt	1 in. npt				
Recommended		Natural	7	7	7	7				
Pressure - in. w	/.g	LPG/Propane	11	11	11	11				

¹ Four-stage gas heating is enabled when room sensor, Discharge Air Control, or fresh air tempering mode is selected. (Available when using the CS8500 thermostat or when connected to Building Automation Systems using BACnet, LonTalk, or S-Bus protocols)

HIGH ALTITUDE DERATE

Units may be installed at altitudes up to 2000 feet above sea level without any modification.

At altitudes above 2000 feet, units must be derated to match gas manifold pressures shown in table below.

At altitudes above 4500 feet unit must be derated 2% for each 1000 feet above sea level.

NOTE – This is the only permissible derate for these units.

TWO-STAGE

Gas Heat Type	Altitude - ft. Gas Manifold Pressure - in. w.g.			t Rate PG/Propane - Btuh	
(Two-Stage)		Natural Gas	LPG/Propane Gas	First Stage	Second Stage
Low (L)			No adjustment requ	ired	
Standard (S)	2001 - 4500	3.4	9.6	169,000	249,000
Medium (M)	2001 - 4500	3.4	9.6	234,000	345,000
High (H)	2001 - 4500	3.4	9.6	312,000	460,000

FOUR-STAGE

¹ Gas Heat Type	Altitude - ft.	Gas Manifold P	Manifold Pressure - in. w.g. Natura			t Rate G/Propand	e - Btuh				
(Four-Stage)		Natural Gas	LPG/Propane Gas	First Stage	Second Stage	Third Stage	Fourth Stage				
Low (L)		No adjustment required									
Standard (S)	2001 - 4500	3.4	9.6	84,000	169,000	209,000	249,000				
Medium (M)	2001 - 4500	3.4	9.6	117,000	234,000	289,000	345,000				
High (H)	2001 - 4500	3.4	9.6	156,000	312,000	386,000	460,000				

¹ Four-Stage Gas Heating is field configured.

NOTE - For Temperatures and Capacities not shown in tables, see bulletin - Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

13 TON - LGM156U4M/V (ONE COMPRESSOR OPERATING)

Factoria a								Ou	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	lic						
Entering	Total			65°F					75°F				1	35°F					95°F		
Wet Bulb	Air	Total	Comp.		ible To		Total	Comp.		ible To		Total	Comp.		ble To			Comp.		ible To	
Tem-	Volume	Cool	Motor	Ra	atio (S/	(T)	Cool	Motor	R	atio (S/	T)	Cool	Motor	Ra	tio (S/	T)	Cool	Motor	R	atio (S/	T)
perature		Сар.	Input		ry Bul	b	Сар.	Input		ry Bul	b	Cap.	Input	D	ry Bul	b	Cap.	Input		ry Bull	<u> </u>
porataro	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
	1200	33.6	0.91	0.83	0.97	1	32.3	1.09	0.85	0.98	1	31.1	1.28	0.87	0.98	1	30	1.51	0.88	0.99	1
63°F	1500	35.2	0.91	0.89	0.99	1	34	1.08	0.91	1	1	32.7	1.28	0.93	1	1	31.5	1.51	0.94	1	1
	1800	36.7	0.9	0.93	1	1	35.4	1.08	0.94	1	1	34.1	1.29	0.95	1	1	32.9	1.52	0.96	1	1
	1200	35.1	0.91	0.53	0.77	0.95	33.8	1.08	0.54	0.79	0.96	32.5	1.28	0.55	0.82	0.97	31.2	1.51	0.56	0.84	0.98
67°F	1500	36.6	0.9	0.57	0.84	0.98	35.2	1.08	0.58	0.87	0.99	33.8	1.28	0.59	0.89	0.99	32.5	1.52	0.61	0.92	1
	1800	37.7	0.9	0.6	0.91	1	36.2	1.08	0.61	0.93	1	34.8	1.29	0.63	0.94	1	33.4	1.52	0.65	0.95	1
	1200	36.8	0.9	0.24	0.48	0.72	35.4	1.08	0.23	0.49	0.74	34	1.29	0.23	0.51	0.76	32.7	1.52	0.24	0.52	0.79
71°F	1500	38.2	0.9	0.23	0.52	0.79	36.7	1.08	0.23	0.54	0.82	35.4	1.29	0.24	0.55	0.84	33.9	1.52	0.24	0.57	0.88
	1800	39.4	0.89	0.24	0.57	0.86	37.8	1.08	0.24	0.58	0.89	36.3	1.29	0.25	0.6	0.92	34.9	1.52	0.26	0.62	0.93

NOTE - Compressor operating at maximum capacity.

13 TON - LGM156U4M/V (TWO COMPRESSORS OPERATING)

								Out	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering Wet	Total			65°F					75°F					35°F					95°F		
Bulb	Air	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sensi	ble To	Total	Total	Comp.	Sens	ible To	Total
Tem-	Volume	Cool	Motor	Ra	atio (S/	(T)	Cool	Motor	R	atio (S/	T)	Cool	Motor	Ra	atio (S/	T)	Cool	Motor	R	atio (S/	T)
perature		Сар.	Input		ry Bul	b	Cap.	Input		ry Bul	b	Cap.	Input	D	ry Bul	b	Cap.	Input		ry Bull	b
poruturo	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
	3120	113.8	5.18	0.72	0.84	0.96	110.4	5.76	0.73	0.86	0.97	105.4	6.6	0.74	0.88	0.98	100	7.51	0.76	0.9	0.99
63°F	3900	119.2	5.18	0.76	0.9	0.99	115.6	5.78	0.77	0.92	1	110.6	6.62	0.79	0.94	1	105.8	7.51	8.0	0.95	1
	4680	124.2	5.19	0.8	0.95	1	120.6	5.79	0.81	0.97	1	115.3	6.64	0.83	0.98	1	110.5	7.53	0.85	0.99	1
	3120	119.8	5.18	0.58	0.7	0.81	116.3	5.78	0.58	0.71	0.82	111	6.63	0.59	0.72	0.84	106	7.55	0.6	0.74	0.86
67°F	3900	126.5	5.18	0.6	0.74	0.87	122.5	5.8	0.61	0.75	0.89	116.7	6.66	0.62	0.77	0.91	110.8	7.08	0.63	0.78	0.93
	4680	130.1	5.19	0.62	0.77	0.92	126.9	5.81	0.63	0.79	0.94	120.9	6.66	0.64	0.81	0.96	114.7	7.6	0.66	0.83	0.97
	3120	124.9	5.19	0.44	0.56	0.68	120.8	5.85	0.45	0.57	0.68	116.1	6.66	0.45	0.58	0.7	110.9	7.58	0.45	0.59	0.71
71°F	3900	132.1	5.19	0.44	0.59	0.71	127.5	5.87	0.45	0.59	0.73	122.2	6.68	0.45	0.61	0.74	116.6	7.61	0.46	0.62	0.76
	4680	137.5	5.19	0.46	0.61	0.75	132.4	5.88	0.46	0.62	0.76	126.7	6.7	0.47	0.63	0.79	120.7	7.62	0.46	0.65	0.81

NOTE - Compressors operating at maximum capacity.

13 TON - LGM156U4M/V (THREE COMPRESSORS OPERATING)

			1017 0 (1																		
=								Ou	tdoor A	ur Iem	peratu	re Enter	ing Outo	loor C	OII						
Entering	Total			65°F					75°F					35°F					95°F		
Wet	Air	Total	Comp.	Sensi	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sensi	ble To	Total	Total	Comp.	Sens	ible To	Total
Bulb	Volume	Cool	Motor	Ra	atio (S/	/T)	Cool	Motor	R	atio (S/	T)	Cool	Motor	Ra	atio (S/	T)	Cool	Motor	R	atio (S/	T)
Tem- perature		Cap.	Input	D	ry Bul	b	Cap.	Input	С	ry Bul	b	Cap.	Input	D	ry Bul	b	Cap.	Input		ry Bull	b
perature	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
	4160	155.2	8.72	0.72	0.84	0.95	144.8	9.9	0.72	0.85	0.97	133.7	11.22	0.73	0.87	0.99	122.3	12.69	0.75	0.89	1
63°F	5200	164.5	8.75	0.77	0.9	1	153.3	9.93	0.78	0.92	1	141.3	11.25	0.79	0.95	1	129.5	12.71	0.81	0.97	1
	6240	171.3	8.77	0.81	0.96	1	160.1	9.95	0.83	0.98	1	148.4	11.28	0.85	0.99	1	136.7	12.73	0.87	1	1
	4160	163.2	8.75	0.56	0.69	0.81	152	9.92	0.56	0.7	0.82	140.3	11.25	0.55	0.72	0.84	128.7	12.71	0.55	0.72	0.86
67°F	5200	172.1	8.77	0.59	0.74	0.87	160.8	9.95	0.61	0.75	0.89	148.9	11.28	0.6	0.77	0.92	136.3	12.73	0.61	0.79	0.95
	6240	179.4	8.79	0.63	0.79	0.93	167.5	9.97	0.64	0.8	0.96	154.8	11.3	0.63	0.82	0.98	141.7	12.75	0.64	0.85	0.99
	4160	174	8.78	0.42	0.55	0.67	162.3	9.96	0.41	0.55	0.68	150.2	11.28	0.4	0.55	0.69	137.8	12.74	0.38	0.54	0.71
71°F	5200	183.2	8.8	0.43	0.59	0.73	170.8	9.98	0.42	0.59	0.74	158.1	11.31	0.41	0.6	0.75	144.6	12.75	0.4	0.6	0.77
	6240	189.8	8.81	0.45	0.62	0.78	177	9.99	0.44	0.62	0.79	163.6	11.32	0.43	0.63	0.81	149.6	12.77	0.45	0.64	0.83

NOTE - For Temperatures and Capacities not shown in tables, see bulletin - Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

15 TON - LGM180U4M/V (ONE COMPRESSOR OPERATING)

F								Ou	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering	Total		(65°F					75°F					85°F					95°F		
Wet Bulb	Air	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total
Tem-	Volume	Cool	Motor	Ra	atio (S/	(T)	Cool	Motor	R	atio (S/	T)	Cool	Motor	Ra	atio (S/	T)	Cool	Motor	R	atio (S/	T)
perature		Сар.	Input		ry Bul	b	Cap.	Input		ry Bul	b	Сар.	Input		ry Bul	b	Cap.	Input		Dry Bull	b
porataro	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
	1600	36.1	1.02	0.9	1	1	33.8	1.22	0.91	1	1	31.7	1.44	0.93	1	1	29.6	1.69	0.95	1	1
63°F	2000	38.1	1.01	0.98	1	1	35.8	1.22	1	1	1	33.7	1.44	1	1	1	31.4	1.7	1	1	1
	2400	39.8	1.01	1	1	1	37.5	1.22	1	1	1	35.2	1.45	1	1	1	32.9	1.71	1	1	1
	1600	37.9	1.01	0.57	0.86	1	35.5	1.22	0.57	0.87	1	33.1	1.44	0.56	0.89	1	30.9	1.7	0.55	0.91	1
67°F	2000	39.4	1.01	0.62	0.94	1	36.9	1.22	0.62	0.96	1	34.5	1.45	0.62	0.98	1	32	1.7	0.63	1	1
	2400	40.5	1.01	0.67	1	1	38	1.22	0.67	1	1	35.5	1.45	0.69	1	1	33.1	1.71	0.69	1	1
	1600	40.1	1.01	0.25	0.54	0.81	37.6	1.22	0.22	0.54	0.83	35.2	1.45	0.2	0.54	0.84	32.8	1.7	0.18	0.54	0.87
71°F	2000	41.5	1.01	0.26	0.59	0.9	39	1.22	0.24	0.6	0.92	36.5	1.45	0.22	0.6	0.94	34	1.71	0.19	0.61	0.97
	2400	42.7	1.01	0.27	0.65	0.98	40	1.22	0.25	0.66	1	37.4	1.45	0.24	0.67	1	34.9	1.72	0.22	0.68	1

NOTE - Compressor operating at maximum capacity.

15 TON - LGM180U4M/V (TWO COMPRESSORS OPERATING)

Fatadaa								Ou	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering Wet	Total		(65°F					75°F				1	85°F					95°F		
Bulb	Air	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sensi	ible To	Total	Total	Comp.	Sens	ible To	Total
Tem-	Volume	Cool	Motor	Ra	atio (S	(T)	Cool	Motor	R	atio (S/	T)	Cool	Motor	Ra	atio (S/	T)	Cool	Motor	R	atio (S/	T)
perature		Cap.	Input		ry Bul	b	Сар.	Input		ry Bul	b	Сар.	Input		ry Bul	b	Cap.	Input		ry Bull	b
porataro	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
	3600	133.7	5.69	0.72	0.85	0.96	127.1	6.4	0.73	0.86	0.97	120.2	7.24	0.73	0.87	0.98	112.1	8.16	0.74	0.89	0.99
63°F	4500	140.7	5.71	0.76	0.9	0.99	133.6	6.44	0.77	0.92	1	126.5	7.28	0.78	0.94	1	118.9	8.21	0.79	0.95	1
	5400	146.5	5.73	0.8	0.95	1	139.5	6.46	0.81	0.97	1	132.1	7.31	0.83	0.98	1	124.6	8.25	0.84	0.99	1
	3600	141.4	5.72	0.58	0.7	0.82	134.7	6.44	0.58	0.71	0.83	127.6	7.28	0.58	0.71	0.84	120	8.22	0.58	0.72	0.86
67°F	4500	149.4	5.74	0.61	0.74	0.87	142.2	6.48	0.61	0.75	0.89	134.4	7.32	0.61	0.76	0.91	126.3	8.27	0.62	0.77	0.93
	5400	155.1	5.76	0.63	0.78	0.93	147.5	6.5	0.63	0.8	0.94	139.4	7.35	0.64	0.81	0.96	130.9	8.3	0.64	0.82	0.98
	3600	148.7	5.74	0.45	0.56	0.68	141.6	6.47	0.44	0.57	0.69	134.2	7.32	0.44	0.57	0.7	126.5	8.27	0.44	0.57	0.71
71°F	4500	157	5.77	0.46	0.6	0.72	149.6	6.51	0.46	0.6	0.73	141.8	7.36	0.45	0.6	0.74	133.4	8.31	0.45	0.61	0.75
	5400	163.3	5.78	0.47	0.62	0.76	155.4	6.53	0.46	0.63	0.78	147.1	7.39	0.46	0.63	0.79	138.4	8.34	0.46	0.64	0.81

NOTE - Compressors operating at maximum capacity.

15 TON - LGM180U4M/V (THREE COMPRESSORS OPERATING)

								Ou	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering	Total		(65°F					75°F					35°F					95°F		
Wet Bulb	Air	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sensi	ble To	Total	Total	Comp.	Sens	ible To	Total
Tem-	Volume	Cool	Motor	Ra	atio (S	(T)	Cool	Motor	R	atio (S/	T)	Cool	Motor	Ra	atio (S/	T)	Cool	Motor	R	atio (S/	T)
perature		Cap.	Input		ry Bul	b	Cap.	Input		ry Bul	b	Cap.	Input	D	ry Bul	b	Cap.	Input		ry Bull	b
porataro	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
	4800	178.2	10.21	0.71	0.84	0.95	167.4	11.49	0.72	0.85	0.97	156.1	12.93	0.74	0.87	0.99	143.8	14.51	0.75	0.9	1
63°F	6000	188.3	10.26	0.77	0.9	1	176.5	11.55	0.78	0.92	1	164.2	12.99	0.8	0.95	1	151.6	14.58	0.81	0.97	1
	7200	195.4	10.31	0.81	0.96	1	183.6	11.6	0.83	0.98	1	171.5	13.05	0.85	0.99	1	159.2	14.64	0.87	1	1
	4800	187.1	10.27	0.56	0.69	0.81	175.2	11.55	0.56	0.71	0.83	163.2	12.98	0.56	0.72	0.84	150.8	14.57	0.56	0.73	0.87
67°F	6000	196.3	10.32	0.6	0.76	0.87	184.4	11.61	0.61	0.76	0.89	172.1	13.05	0.61	0.77	0.92	159	14.64	0.62	0.79	0.94
	7200	204.1	10.36	0.63	0.79	0.93	191.6	11.66	0.64	0.8	0.95	178.6	13.1	0.64	0.82	0.98	164.7	14.69	0.67	0.85	0.99
	4800	198.8	10.33	0.42	0.55	0.67	186.7	11.63	0.41	0.55	0.68	173.8	13.06	0.4	0.56	0.69	160.7	14.66	0.4	0.56	0.71
71°F	6000	208.4	10.38	0.43	0.59	0.73	195.5	11.68	0.43	0.59	0.74	182.1	13.12	0.42	0.6	0.76	168.2	14.73	0.42	0.6	0.78
	7200	215.4	10.42	0.45	0.62	0.78	202.1	11.72	0.45	0.62	0.79	187.9	13.17	0.44	0.64	0.81	173.1	14.77	0.46	0.66	0.83

NOTE - For Temperatures and Capacities not shown in tables, see bulletin - Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

17.5 TON - LGM210U4M/V (ONE COMPRESSOR OPERATING)

								Out	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering	Total			65°F					75°F				1	35°F					95°F		
Wet Bulb	Air	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sensi	ble To	Total	Total	Comp.	Sens	ible To	Total
Tem-	Volume	Cool	Motor	Ra	atio (S/	(T)	Cool	Motor	R	atio (S/	T)	Cool	Motor	Ra	atio (S/	T)	Cool	Motor	R	atio (S/	T)
perature		Cap.	Input		ry Bul	b	Сар.	Input		ry Bul	b	Cap.	Input	D	ry Bul	b	Cap.	Input		ry Bull	b
porataro	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
	1600	46.1	1.13	0.81	0.96	1	43.8	1.27	0.82	0.96	1	41.4	1.45	0.83	0.97	1	38.9	1.66	0.85	0.98	1
63°F	2000	48.1	1.13	0.87	0.98	1	45.8	1.27	0.89	0.99	1	43.4	1.45	0.9	1	1	41	1.66	0.91	1	1
	2400	49.9	1.14	0.91	1	1	47.6	1.28	0.92	1	1	45.1	1.45	0.93	1	1	42.7	1.65	0.94	1	1
	1600	48.3	1.13	0.52	0.76	0.94	45.9	1.27	0.51	0.78	0.95	43.4	1.45	0.51	0.79	0.95	40.8	1.66	0.51	0.81	0.97
67°F	2000	50.2	1.14	0.55	0.83	0.97	47.6	1.28	0.55	0.85	0.98	45	1.45	0.56	0.87	0.99	42.4	1.66	0.57	0.9	0.99
	2400	51.5	1.14	0.59	0.89	0.99	48.9	1.28	0.59	0.91	1	46.2	1.45	0.61	0.92	1	43.4	1.65	0.62	0.93	1
	1600	50.6	1.14	0.22	0.48	0.72	48.1	1.28	0.21	0.48	0.73	45.6	1.45	0.2	0.48	0.74	43	1.66	0.19	0.48	0.76
71°F	2000	52.4	1.14	0.23	0.52	0.79	49.9	1.28	0.22	0.52	0.81	47.2	1.45	0.2	0.53	0.82	44.5	1.65	0.2	0.54	0.85
	2400	53.7	1.15	0.23	0.56	0.86	51.1	1.28	0.22	0.57	0.88	48.3	1.45	0.22	0.58	0.9	45.6	1.65	0.21	0.6	0.91

NOTE - Compressor operating at maximum capacity.

17.5 TON - LGM210U4M/V (TWO COMPRESSORS OPERATING)

								Ou	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering	Total		8	85°F					95°F				1	05°F					115°F		
Wet Bulb	Air	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sensi	ble To	Total	Total	Comp.	Sens	ible To	Total
Tem-	Volume	Cool	Motor	Ra	atio (S	/T)	Cool	Motor	R	atio (S/	T)	Cool	Motor	Ra	atio (S/	T)	Cool	Motor	R	atio (S/	T)
perature		Cap.	Input		ry Bul	b	Сар.	Input		ry Bul	b	Cap.	Input		ry Bul	b	Cap.	Input		ry Bull	b
porataro	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
	2800	96.9	3.27	0.73	0.86	0.98	92.1	3.73	0.73	0.88	0.99	87.1	4.26	0.74	0.89	1	82.2	4.85	0.75	0.91	1
63°F	3500	102.4	3.27	0.77	0.93	1	97.2	3.74	0.78	0.94	1	92.1	4.27	0.79	0.96	1	87.1	4.86	0.81	0.98	1
	4200	107.3	3.25	0.82	0.97	1	101.9	3.74	0.83	0.99	1	96.6	4.28	0.85	0.99	1	91.3	4.88	0.86	1	1
	2800	102.5	3.27	0.56	0.71	0.83	97.4	3.74	0.56	0.72	0.85	92.6	4.23	0.58	0.72	0.86	86.9	4.87	0.57	0.73	0.88
67°F	3500	108.1	3.27	0.59	0.75	0.89	102.4	3.75	0.6	0.76	0.91	97.3	4.24	0.6	0.78	0.93	91.1	4.88	0.61	0.79	0.95
	4200	111.8	3.28	0.62	0.8	0.95	106	3.76	0.63	0.81	0.97	100.8	4.25	0.64	0.82	0.98	94.5	4.88	0.65	0.84	0.99
	2800	108	3.24	0.44	0.56	0.69	102.4	3.75	0.42	0.57	0.68	97.6	4.24	0.41	0.55	0.7	91.9	4.86	0.4	0.56	0.7
71°F	3500	113.9	3.25	0.42	0.58	0.73	108	3.76	0.42	0.59	0.74	102.7	4.25	0.42	0.6	0.75	97	4.87	0.42	0.6	0.77
	4200	118.3	3.26	0.44	0.62	0.78	112.1	3.76	0.44	0.62	0.79	106.5	4.26	0.44	0.63	0.8	99.9	4.88	0.44	0.64	0.82

NOTE - Compressors operating at maximum capacity.

17.5 TON - LGM210U4M/V (THREE COMPRESSORS OPERATING)

				<u> </u>																	
								Ou	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering	Total		(65°F					75°F				3	35°F					95°F		
Wet	Air	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sensi	ble To	Total	Total	Comp.	Sens	ible To	Total
Bulb Tem-	Volume	Cool	Motor	Ra	atio (S	/T)	Cool	Motor	R	atio (S/	T)	Cool	Motor	Ra	atio (S/	T)	Cool	Motor	R	atio (S/	T)
perature		Cap.	Input	D	ry Bul	b	Cap.	Input		ry Bul	b	Cap.	Input	D	ry Bul	b	Cap.	Input		ry Bull	b
perature	cfm	kBtuh	kW	101 001 001		kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	
	4200	164	6.17	0.71	0.83	0.94	156.1	6.95	0.71	0.84	0.95	147.8	7.82	0.72	0.85	0.97	139.2	8.85	0.73	0.87	0.99
63°F	5250	172.6	6.21	0.74	0.89	1	164.3	6.98	0.77	0.9	1	155.6	7.85	0.78	0.92	1	146.6	8.85	0.79	0.94	1
	6300	179.5	6.23	8.0	0.94	1	171	6.97	0.81	0.95	1	161.9	7.84	0.83	0.97	1	152.5	8.86	0.83	0.99	1
	4200	172.7	6.21	0.56	0.68	0.81	164.3	6.97	0.56	0.69	0.81	155.4	7.85	0.54	0.7	0.82	146.5	8.83	0.55	0.71	0.84
67°F	5250	181	6.22	0.59	0.73	0.86	171.9	6.99	0.58	0.74	0.87	162.3	7.88	0.59	0.75	0.89	153	8.86	0.6	0.76	0.91
	6300	186.5	6.27	0.61	0.77	0.91	177.3	7.02	0.61	0.78	0.93	167.4	7.89	0.61	0.81	0.95	157.3	8.9	0.62	0.82	0.97
	4200	183.1	6.26	0.41	0.54	0.66	174.4	7.01	0.41	0.54	0.67	165	7.89	0.4	0.53	0.68	155.3	8.9	0.39	0.55	0.69
71°F	5250	191.1	6.29	0.42	0.56	0.7	181.8	7.03	0.41	0.57	0.71	171.8	7.91	0.41	0.57	0.74	161.6	8.92	0.41	0.59	0.75
	6300	196.9	6.31	0.42	0.6	0.76	187.4	7.03	0.42	0.61	0.76	176.9	7.92	0.42	0.61	0.78	166.1	8.91	0.41	0.61	0.81
NOTE C																					

NOTE - Compressors operating at maximum capacity.

17.5 TON - LGM210U4M/V (FOUR COMPRESSORS OPERATING)

Fast a minute								Ou	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering Wet	Total		8	35°F					95°F				1	05°F					115°F		
Rulh	Air	Total	Comp.	Sensi	ble To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sensi	ble To	Total	Total	Comp.	Sens	ible To	Total
Tem-	Volume	Cool	Motor		atio (S/		Cool	Motor		atio (S/		Cool	Motor		atio (S/		Cool	Motor		atio (S/	
perature		Сар.	Input		ry Bul	_	Cap.	Input		ry Bul	_	Cap.	Input		ry Bul	_	Cap.	Input		ry Bull	
poracaro	cfm	kBtuh	1.7 11.57 0.73 0.83 0.94		kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F		
	5600	211.7	11.57	0.73	0.83	0.94	199.6	13.07	0.73	0.85	0.96	186.7	14.79	0.74	0.87	0.98	173.3	16.71	0.74	0.89	0.99
63°F	7000	223.8	11.61	0.75	0.89	1	210.7	13.12	0.76	0.91	1	197.2	14.84	0.78	0.93	1	183.3	16.76	0.81	0.96	1
	8400	233.2	11.65	0.8	0.95	1	219.7	13.16	0.82	0.97	1	205.9	14.87	0.84	0.99	1	191.6	16.79	0.86	1	1
	5600	221.9	11.61	0.56	0.71	0.8	208.8	13.12	0.55	0.71	0.82	194.8	14.84	0.57	0.73	0.84	180.7	16.75	0.57	0.73	0.86
67°F	7000	232.6	11.65	0.59	0.75	0.87	218.8	13.16	0.6	0.76	0.88	204.5	14.87	0.61	0.77	0.9	189.7	16.78	0.63	0.78	0.93
	8400	241.1	11.68	0.62	0.77	0.92	226.7	13.19	0.63	0.79	0.94	212	14.9	0.65	0.82	0.97	196.5	16.8	0.67	0.84	0.99
	5600	236.8	11.67	0.41	0.55	0.69	223	13.19	0.4	0.55	0.69	208.7	14.9	0.39	0.55	0.7	192.9	16.8	0.4	0.57	0.71
71°F	7000	247.4	11.71	0.43	0.59	0.73	232.6	13.22	0.42	0.59	0.74	216.9	14.93	0.44	0.61	0.74	200	16.83	0.45	0.63	0.76
	8400	254.7	11.74	0.45	0.62	0.76	239.1	13.25	0.46	0.63	0.78	222.6	14.95	0.48	0.65	0.8	206	16.84	0.47	0.67	0.82

NOTE - For Temperatures and Capacities not shown in tables, see bulletin - Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

20 TON - LGM240U4M/V (ONE COMPRESSOR OPERATING)

								Ou	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering	Total		(65°F					75°F					35°F					95°F		
Wet Bulb	Air	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sensi	ble To	Total	Total	Comp.	Sens	ible To	Total
Tem-	Volume	Cool	Motor	Ra	atio (S	(T)	Cool	Motor	R	atio (S/	T)	Cool	Motor	Ra	atio (S/	T)	Cool	Motor	R	atio (S/	T)
perature		Cap.	Input		ry Bul	b	Cap.	Input		ry Bul	b	Сар.	Input		ry Bul	b	Cap.	Input		ry Bull	b
poruturo	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
	1600	51.6	1.76	0.8	0.93	0.99	49.4	1.98	0.8	0.93	0.99	46.6	2.28	0.8	0.94	0.99	43.5	2.63	0.81	0.95	1
63°F	2000	54.4	1.75	0.84	0.95	1	51.9	1.97	0.85	0.96	1	49	2.28	0.85	0.96	1	45.9	2.63	0.86	0.97	1
	2400	56.5	1.74	0.87	0.97	1	54	1.97	0.88	0.98	1	51.1	2.28	0.88	0.99	1	47.9	2.64	0.89	0.99	1
	1600	54.5	1.75	0.52	0.74	0.9	52	1.97	0.51	0.75	0.9	49.2	2.28	0.5	0.75	0.91	46.1	2.63	0.49	0.76	0.92
67°F	2000	57.3	1.73	0.54	8.0	0.93	54.7	1.97	0.53	0.81	0.94	51.6	2.28	0.53	0.82	0.95	48.3	2.64	0.53	0.83	0.95
	2400	59.3	1.72	0.57	0.84	0.96	56.6	1.97	0.57	0.85	0.96	53.4	2.28	0.56	0.86	0.97	50	2.64	0.57	0.87	0.98
	1600	57.5	1.73	0.24	0.47	0.69	54.9	1.97	0.22	0.47	0.69	52	2.28	0.2	0.46	0.7	48.8	2.64	0.18	0.45	0.71
71°F	2000	60.3	1.72	0.24	0.5	0.74	57.6	1.96	0.22	0.5	0.75	54.5	2.28	0.2	0.5	0.77	51.1	2.64	0.18	0.49	0.78
	2400	62.5	1.71	0.24	0.53	0.8	59.5	1.96	0.22	0.53	0.81	56.3	2.28	0.21	0.53	0.83	52.8	2.64	0.19	0.54	0.84

NOTE - Compressor operating at maximum capacity.

20 TON - LGM240U4M/V (TWO COMPRESSORS OPERATING)

								Ou	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering	Total			85°F					95°F				1	05°F					115°F		
Wet Bulb	Air	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ble To	Total	Total	Comp.	Sens	ible To	Total
Tem-	Volume	Cool	Motor	Ra	atio (S/	(T)	Cool	Motor	R	atio (S/	T)	Cool	Motor	Ra	atio (S/	T)	Cool	Motor	R	atio (S/	T)
perature		Cap.	Input		ry Bul	b	Cap.	Input		ry Bul	b	Сар.	Input		ry Bul	b	Cap.	Input		ry Bull	b
poruturo	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
	3200	113.6	4.19	0.74	0.87	0.96	107.7	4.73	0.73	0.88	0.97	101.3	5.36	0.75	0.9	0.98	94.7	6.06	0.76	0.91	0.99
63°F	4000	119	4.21	0.79	0.92	1	112.7	4.77	0.8	0.93	1	105.9	5.4	0.81	0.94	1	99.3	6.09	0.83	0.95	1
	4800	123.1	4.24	0.82	0.96	1	116.6	4.79	0.83	0.96	1	110.1	5.4	0.84	0.98	1	103.2	6.11	0.87	0.99	1
	3200	119.8	4.21	0.53	0.71	0.84	113.6	4.76	0.54	0.7	0.85	106.8	5.38	0.53	0.72	0.86	99.8	6.09	0.54	0.72	0.88
67°F	4000	124.8	4.23	0.57	0.75	0.89	117.9	4.79	0.56	0.76	0.9	110.9	5.41	0.56	0.78	0.92	103.6	6.12	0.56	0.8	0.94
	4800	128.2	4.25	0.59	0.8	0.93	121.2	4.8	0.59	0.81	0.95	114	5.42	0.59	0.82	0.96	106.5	6.13	0.6	0.84	0.97
	3200	126.5	4.25	0.36	0.51	0.67	119.8	4.8	0.35	0.52	0.67	112.9	5.42	0.34	0.51	0.69	105.6	6.12	0.33	0.51	0.7
71°F	4000	131.3	4.28	0.35	0.54	0.72	124	4.82	0.35	0.55	0.73	116.8	5.44	0.35	0.55	0.75	109.3	6.13	0.33	0.56	0.75
	4800	134.4	4.3	0.35	0.58	0.77	127.1	4.84	0.35	0.58	0.79	119.5	5.45	0.35	0.59	0.81	111.8	6.14	0.34	0.59	0.83

NOTE - Compressors operating at maximum capacity.

20 TON - LGM240U4M/V (THREE COMPRESSORS OPERATING)

								Ou	tdoor A	ir Tem	peratu	re Enter	ing Out	loor C	oil						
Entering	Total		(65°F					75°F					35°F					95°F		
Wet Bulb	Air	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ble To	Total	Total	Comp.	Sens	ible To	Total
Tem-	Volume	Cool	Motor	Ra	atio (S	T)	Cool	Motor	R	atio (S/	T)	Cool	Motor	Ra	atio (S/	T)	Cool	Motor	R	atio (S/	T)
perature		Cap.	Input		ry Bul	b	Cap.	Input		ry Bul	b	Cap.	Input		ry Bul	b	Cap.	Input		ry Bull	b
poruturo	cfm	kBtuh	kW	75°F	80°F 85°F kBtuh 0.85 0.94 173		kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
	4800	182.5	6.82	0.74	0.85	0.94	173	7.77	0.75	0.85	0.95	163.1	8.8	0.74	0.87	0.96	153	9.96	0.76	0.87	0.97
63°F	6000	192.5	6.87	0.78	0.89	0.97	182.8	7.81	0.79	0.9	0.98	172.5	8.85	0.8	0.92	0.99	162.1	9.99	0.81	0.93	1
	7200	200.7	6.91	0.82	0.93	1	190.5	7.85	0.83	0.94	1	180.1	8.88	0.83	0.95	1	169.1	10.03	0.85	0.96	1
	4800	193.9	6.88	0.57	0.7	0.82	183.8	7.82	0.56	0.7	0.83	172.9	8.85	0.57	0.71	0.84	161.7	9.99	0.56	0.73	0.85
67°F	6000	202.5	6.93	0.6	0.75	0.87	191.3	7.85	0.59	0.77	0.88	179.6	8.88	0.6	0.77	0.89	168.4	10.02	0.6	0.79	0.9
	7200	208.1	6.96	0.61	0.8	0.91	197	7.88	0.62	0.8	0.92	185.5	8.91	0.63	0.82	0.93	173.9	10.04	0.64	0.83	0.95
	4800	205.1	6.94	0.41	0.55	0.67	194.5	7.88	0.42	0.54	0.67	183.5	8.9	0.4	0.54	0.69	171.9	10.04	0.38	0.55	0.69
71°F	6000	214	6.99	0.42	0.57	0.72	196.9	7.99	0.42	0.6	0.73	191.1	8.94	0.38	0.59	0.75	179	10.07	0.38	0.58	0.76
	7200	220.2	7.02	0.44	0.6	0.78	208.5	7.94	0.44	0.62	0.78	196.2	8.95	0.4	0.63	0.79	183.7	10.09	0.39	0.62	0.82

NOTE - Compressors operating at maximum capacity.

20 TON - LGM240U4M/V (FOUR COMPRESSORS OPERATING)

20 1011																					
-								Ou	tdoor A	ir Tem	peratu	re Enter	ing Outo	door C	oil						
Entering	Total			85°F					95°F				1	05°F					115°F		
Wet	Air	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total
Bulb Tem-	Volume	Cool	Motor	Ra	atio (S	/T)	Cool	Motor	R	atio (S/	T)	Cool	Motor	Ra	atio (S/	T)	Cool	Motor	R	atio (S/	T)
perature		Сар.	Input		ry Bul	b	Cap.	Input		ry Bul	b	Сар.	Input	С	ry Bul	b	Cap.	Input		Dry Bull	b
perature	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
	6400	242.5	13.9	0.73	0.83	0.94	228.2	15.64	0.74	0.84	0.95	213.2	17.55	0.74	0.86	0.97	197.4	19.66	0.76	0.88	0.99
63°F	8000	257.4	14.01	0.76	0.89	0.99	241.8	15.75	0.78	0.9	1	225.6	17.67	0.78	0.92	1	209.1	19.78	8.0	0.95	1
	9600	268.1	14.1	0.8	0.94	1	252.3	15.84	0.82	0.96	1	235.9	17.76	0.84	0.98	1	219.2	19.88	0.85	0.99	1
	6400	255.7	14.02	0.56	0.7	0.8	239.7	15.75	0.57	0.71	0.82	223.2	17.66	0.57	0.72	0.83	206.2	19.77	0.57	0.74	0.85
67°F	8000	268	14.11	0.61	0.75	0.86	251.7	15.84	0.61	0.77	0.88	234.8	17.76	0.62	0.77	0.9	217.3	19.88	0.62	0.78	0.92
	9600	278	14.18	0.63	0.79	0.91	261.2	15.92	0.64	0.79	0.93	243.7	17.84	0.64	0.81	0.95	225.9	19.96	0.66	0.83	0.98
	6400	272.9	14.17	0.42	0.56	0.68	256.7	15.9	0.41	0.56	0.69	239.6	17.83	0.4	0.55	0.7	221.8	19.94	0.4	0.56	0.71
71°F	8000	286.1	14.26	0.43	0.59	0.73	268.6	16	0.42	0.6	0.74	251.1	17.93	0.42	0.59	0.74	231.9	20.04	0.43	0.6	0.76
	9600	294.9	14.32	0.45	0.63	0.77	276.6	16.06	0.44	0.63	0.78	258.1	17.99	0.45	0.64	0.8	237.8	20.1	0.47	0.66	0.81

NOTE - For Temperatures and Capacities not shown in tables, see bulletin - Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

25 TON - LGM300U4M/V (ONE COMPRESSOR OPERATING)

								Out	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering	Total			65°F					75°F				8	35°F					95°F		
Wet Bulb	Air	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sensi	ble To	Total	Total	Comp.	Sens	ible To	Total
Tem-	Volume	Cool	Motor	Ra	atio (S/	(T)	Cool	Motor	R	atio (S/	T)	Cool	Motor	Ra	atio (S/	T)	Cool	Motor	R	atio (S/	T)
perature		Cap.	Input		ry Bul	b	Сар.	Input		ry Bul	b	Cap.	Input	D	ry Bul	b	Cap.	Input		ry Bull	b
perature	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
	2000	57.9	1.84	8.0	0.94	0.99	55.3	2.07	0.81	0.94	1	52.3	2.39	0.82	0.95	1	48.9	2.76	0.83	0.96	1
63°F	2500	60.7	1.83	0.86	0.96	1	58	2.07	0.86	0.97	1	54.9	2.39	0.87	0.98	1	51.6	2.77	0.88	0.98	1
	3000	63.1	1.82	0.88	0.98	1	60.4	2.06	0.89	0.99	1	57.2	2.39	0.9	0.99	1	53.8	2.77	0.9	1	1
	2000	60.9	1.83	0.51	0.75	0.91	58.3	2.07	0.51	0.76	0.92	55.2	2.39	0.5	0.77	0.93	51.7	2.77	0.5	0.78	0.94
67°F	2500	63.8	1.81	0.54	0.81	0.94	60.9	2.06	0.54	0.82	0.95	57.7	2.39	0.54	0.84	0.96	54	2.77	0.54	0.85	0.97
	3000	66	1.8	0.57	0.86	0.97	63	2.06	0.58	0.87	0.97	59.5	2.39	0.58	0.87	0.98	55.6	2.77	0.58	0.88	0.99
	2000	64.2	1.82	0.23	0.47	0.7	61.4	2.06	0.21	0.47	0.7	58.2	2.39	0.19	0.46	0.71	54.7	2.77	0.18	0.46	0.73
71°F	2500	67.1	1.8	0.23	0.51	0.76	64.2	2.05	0.21	0.5	0.77	60.7	2.39	0.2	0.5	0.79	57	2.77	0.18	0.51	0.8
	3000	69.2	1.79	0.23	0.54	0.82	66.1	2.05	0.22	0.54	0.83	62.6	2.39	0.21	0.55	0.85	58.7	2.77	0.19	0.55	0.86

NOTE - Compressor operating at maximum capacity.

25 TON - LGM300U4M/V (TWO COMPRESSORS OPERATING)

								Ou	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering	Total			85°F					95°F				1	05°F					115°F		
Wet Bulb Tem-	Air Volume	Total Cool	Comp. Motor	Ra	ible To atio (S	/T)	Total Cool	Comp. Motor	R	ible To atio (S/	T)	Total Cool	Comp. Motor	Ra	ible To atio (S	(T)	Total Cool	Comp. Motor	R	ible To atio (S/	T)
perature		Cap.	Input		ry Bul		Сар.	Input		ry Bul		Cap.	Input	_	ry Bul		Cap.	Input		ry Bull	
p-0-1-1-1-1	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
	4000	131.3	5.21	0.73	0.86	0.98	125.2	5.83	0.73	0.87	0.99	118.6	6.61	0.74	0.88	1	111.1	7.51	0.75	0.9	1
63°F	5000	138.4	5.21	0.77	0.92	1	132.2	5.86	0.78	0.93	1	125.2	6.64	0.79	0.95	1	117.8	7.56	8.0	0.96	1
	6000	144.6	5.22	0.81	0.96	1	138	5.88	0.82	0.97	1	131	6.67	0.83	0.98	1	123.4	7.59	0.85	0.99	1
	4000	139.4	5.21	0.58	0.71	0.83	132.8	5.86	0.58	0.71	0.84	125.6	6.64	0.58	0.72	0.85	117.9	7.55	0.58	0.73	0.87
67°F	5000	146.1	5.22	0.6	0.75	0.89	139.3	5.88	0.61	0.76	0.9	131.6	6.68	0.61	0.77	0.92	123.2	7.58	0.6	0.78	0.94
	6000	151.1	5.24	0.62	0.79	0.94	143.7	5.9	0.62	0.8	0.95	135.4	6.69	0.62	0.81	0.97	127.4	7.62	0.63	0.83	0.98
	4000	147.2	5.21	0.43	0.56	0.69	140.1	5.87	0.43	0.57	0.69	132.7	6.67	0.43	0.57	0.7	124.7	7.59	0.41	0.57	0.71
71°F	5000	154.2	5.23	0.45	0.6	0.73	146.9	5.9	0.42	0.6	0.74	139.1	6.71	0.43	0.6	0.75	130.8	7.63	0.4	0.59	0.76
	6000	159.6	5.24	0.43	0.62	0.77	151.7	5.91	0.43	0.61	0.78	143.7	6.72	0.43	0.61	0.8	134.8	7.65	0.43	0.64	0.81

NOTE - Compressors operating at maximum capacity.

25 TON - LGM300U4M/V (THREE COMPRESSORS OPERATING)

								Ou	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering	Total		(65°F					75°F					35°F					95°F		
Wet Bulb Tem-	Air Volume	Total Cool	Comp. Motor		ible To atio (S		Total Cool	Comp. Motor		ible To atio (S/		Total Cool	Comp. Motor		ible To atio (S/		Total Cool	Comp. Motor		ible To atio (S/	
perature		Cap.	Input	D	ry Bul	b	Cap.	Input		ry Bul	b	Cap.	Input		ry Bul	b	Cap.	Input		ry Bull	b
poruturo	cfm	kBtuh	kW	75°F	80°F 85°F kBtu 0.82 0.93 208			kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
	5600	218.9	9.6	0.7	0.82	0.93	208.5	10.77	0.69	0.82	0.94	197.2	12.14	0.7	0.85	0.96	185.5	13.67	0.72	0.86	0.97
63°F	7000	230.5	9.64	0.73	0.87	0.98	219.4	10.83	0.75	0.89	0.99	207.4	12.2	0.75	0.91	1	195.2	13.75	0.76	0.92	1
	8400	239	9.67	0.77	0.94	1	227.9	10.87	0.78	0.94	1	215.7	12.26	0.79	0.95	1	203.4	13.81	0.82	0.97	1
	5600	231.9	9.65	0.55	0.67	0.78	220.9	10.85	0.55	0.67	0.79	208.9	12.22	0.54	0.69	0.82	196.6	13.77	0.54	0.69	0.83
67°F	7000	243.2	9.7	0.57	0.71	0.85	231.6	10.9	0.57	0.71	0.85	218.9	12.28	0.56	0.73	0.88	205.9	13.84	0.58	0.74	0.88
	8400	251.4	9.72	0.58	0.75	0.9	239.2	10.93	0.6	0.75	0.91	226	12.32	0.59	0.77	0.93	212.4	13.88	0.61	0.79	0.95
	5600	246.5	9.72	0.41	0.53	0.64	234.7	10.93	0.4	0.54	0.65	222.5	12.33	0.4	0.54	0.66	209.6	13.87	0.39	0.53	0.67
71°F	7000	258.3	9.75	0.41	0.55	0.69	245.4	10.98	0.41	0.56	0.69	232.4	12.39	0.4	0.56	0.7	218.7	13.95	0.4	0.56	0.71
	8400	266.3	9.78	0.41	0.58	0.73	253.1	11.02	0.42	0.58	0.74	239.5	12.43	0.42	0.58	0.76	225	13.99	0.41	0.6	0.76

NOTE - Compressors operating at maximum capacity.

25 TON - LGM300U4M/V (FOUR COMPRESSORS OPERATING)

								Ou	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering	Total			85°F					95°F				1	05°F					115°F		
Wet Bulb	Air	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sensi	ble To	Total	Total	Comp.	Sens	ible To	Total
Tem-	Volume	Cool	Motor	Ra	atio (S/	(T)	Cool	Motor	R	atio (S/	T)	Cool	Motor	Ra	atio (S/	T)	Cool	Motor	R	atio (S/	T)
perature		Сар.	Input		ry Bul	b	Cap.	Input		ry Bul	b	Cap.	Input	D	ry Bul	b	Cap.	Input		ry Bull	b
poruturo	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
	7000	277.9	18.5	0.71	0.81	0.91	262	20.73	0.72	0.82	0.93	245.1	23.21	0.73	0.84	0.95	227.7	25.99	0.74	0.85	0.97
63°F	8500	292.3	18.65	0.76	0.86	0.96	275.7	20.88	0.76	0.87	0.98	258.2	23.37	0.78	0.89	0.99	239.5	26.14	0.78	0.91	1
	10000	303.9	18.77	0.78	0.9	1	286.4	20.99	0.79	0.92	1	268.1	23.48	0.81	0.94	1	248.8	26.28	0.82	0.96	1
	7000	294.6	18.69	0.58	0.7	0.79	276.9	20.92	0.59	0.71	0.79	258.8	23.39	0.57	0.71	0.8	239.4	26.18	0.58	0.73	0.83
67°F	8500	307.1	18.82	0.65	0.74	0.83	288.7	21.05	0.6	0.75	0.85	269.8	23.54	0.62	0.75	0.86	250.2	26.31	0.64	0.77	0.88
	10000	316.8	18.91	0.63	0.77	0.87	298.1	21.14	0.64	0.78	0.89	279.1	23.65	0.65	0.78	0.91	258.7	26.42	0.67	8.0	0.93
	7000	313.2	18.91	0.44	0.57	0.67	294.8	21.14	0.44	0.58	0.67	270.4	23.57	0.43	0.62	0.69	256.5	26.43	0.44	0.56	0.7
71°F	8500	326.3	19.05	0.44	0.59	0.72	304.8	21.25	0.45	0.59	0.72	287.6	23.79	0.46	0.6	0.74	266	26.57	0.47	0.62	0.74
	10000	333.6	19.13	0.48	0.62	0.75	316.6	21.4	0.51	0.62	0.76	295.3	23.87	0.47	0.64	0.78	273.6	26.67	0.46	0.66	0.79

HUMIDITROL™+ DEHUMIDIFICATION SYSTEM RATINGS

13 TON - LGM156U4M WITH HUMIDITROL™+ OPERATING

									Outdo	or Air	Temp	eratui	re Ente	ering O	utdoor (Coil								
Entering			65°I	F					75°I	F					85°F	:					95°I	=		
Wet Bulb Tempera-	Total Air		Comp. Motor		nsible Ratio		Total Air	Total Cool	Comp. Motor		nsible Ratio	-	Total Air	Total Cool	Comp. Motor	Sei Total	nsible Ratio		Total Air		Comp. Motor		nsible Ratio	
ture	Vol.	Cap.	Input	D	ry Bul	b	Vol.	Сар.	Input	D	ry Bul	b	Vol.	Сар.	Input	D	ry Bul	lb	Vol.	Сар.	Input	D	ry Bul	lb
	cfm	kBtuh	kW	75°F	ny Daib		cfm	kBtuh	kW	75°F	80°F	85°F	cfm	kBtuh	kW	75°F	80°F	85°F	cfm	kBtuh	kW	75°F	80°F	85°F
63°F	1861	45.5	4.85	0.27	0.49	0.69	1735	34.8	5.35	0.09	0.37	0.61	1697	29.7	5.46	0.00	0.29	0.49	1571	22.4	5.78	0.00	0.00	0.44
67°F	1526	53.1	4.96	0.12	0.26	0.41	1450	46.6	5.24	0.12	0.15	0.30	1408	41.0	5.38	0.00	0.16	0.21	1307	32.4	5.77	0.00	0.00	0.19
71°F	1266	60.2	5.05	0.06	0.14	0.25	1190	53.9	5.29	0.06	0.08	0.15	1177	49.3	5.39	0.00	0.08	0.09	1103	40.7	5.82	0.00	0.00	0.07

NOTE - The variable capacity compressor and one fixed capacity compressor operate at maximum Hz, indoor blower operating at optimal CFM and outdoor fan operating to maintain a discharge air temperature target equal to indoor dry bulb temperature.

15 TON - LGM180U4M WITH HUMIDITROL™+ OPERATING

									Outdo	or Air	Temp	eratu	re Ente	ering O	utdoor (Coil								
Entering			65°I	F					75°I	F					85°F						95°I	F		
Wet Bulb Tempera-	Total Air	r Cool Motor Total Ratio (S/T							Comp. Motor		nsible Ratio		Total Air	Total Cool	Comp. Motor		nsible Ratio	To (S/T)	Total Air		Comp. Motor		nsible Ratio	
ture	Vol.	Сар.	Input	D	ry Bu	lb	Vol.	Сар.	Input	D	ry Bu	lb	Vol.	Сар.	Input	D	ry Bu	lb	Vol.	Сар.	Input	D	ry Bul	lb
	cfm	kBtuh	kW	75°F	Dry Daib		cfm	kBtuh	kW	75°F	80°F	85°F	cfm	kBtuh	kW	75°F	80°F	85°F	cfm	kBtuh	kW	75°F	80°F	85°F
63°F	2285	57.9	5.56	0.31	0.53	0.69	2112	43.4	6.19	0.17	0.41	0.65	1881	33.1	6.60	0.01	0.21	0.40	1849	23.7	7.14	0.00	0.01	0.18
67°F	1833	64.4	5.69	0.13	0.28	0.44	1650	51.9	6.22	0.00	0.17	0.35	1553	43.2	6.63	0.00	0.00	0.19	1475	36.6	6.98	0.00	0.00	0.01
71°F	1561	71.5	5.81	0.04	0.15	0.27	1389	58.7	6.40	0.00	0.05	0.18	1378	54.6	6.56	0.00	0.00	0.06	1373	48.0	6.89	0.00	0.00	0.01

NOTE - The variable capacity compressor and one fixed capacity compressor operate at maximum Hz, indoor blower operating at optimal CFM and outdoor fan operating to maintain a discharge air temperature target equal to indoor dry bulb temperature.

17.5 TON - LGM210U4M WITH HUMIDITROL™+ OPERATING

									Outdo	or Air	Temp	eratu	e Ente	ering O	utdoor (Coil								
Entering			65°F	F					75°I	•					85°F						95°I	=		
Wet Bulb Tempera-	Total Air	Cool Motor Total Ratio (S/T					Total Air		Comp. Motor	Sei Total	nsible Ratio	-		Total Cool	Comp. Motor		nsible Ratio		Total Air		Comp. Motor		nsible Ratio	
ture	Vol.	Cap.	Input	D	Dry Bulb V			Cap.	Input	D	ry Bu	lb	Vol.	Cap.	Input	D	ry Bul	b	Vol.	Сар.	Input	D	ry Bu	lb
	cfm	kBtuh	kW	75°F	, , ,		cfm	kBtuh	kW	75°F	80°F	85°F	cfm	kBtuh	kW	75°F	80°F	85°F	cfm	kBtuh	kW	75°F	80°F	85°F
63°F	2190	43.6	4.66	0.72	0.91	1.00	2058	30.9	5.15	0.29	0.87	0.96	2065	18.9	5.63	0.07	0.15	0.46	1838	12.8	5.92	0.00	0.12	0.46
67°F	1657	51.2	4.73	0.34	0.64	0.78	1668	36.7	5.22	0.05	0.48	0.75	1651	24.9	5.59	0.00	0.01	0.38	1475	22.5	5.98	0.00	0.01	0.38
71°F	1759	63.3	4.85	0.02	0.36	0.52	1801	53.6	5.20	0.01	0.18	0.31	1340	33.7	5.53	0.00	0.01	0.16	1228	34.8	9.03	0.00	0.00	0.00

NOTE - The variable capacity compressor and one fixed capacity compressor operate at maximum Hz, indoor blower operating at optimal CFM and outdoor fan operating to maintain a discharge air temperature target equal to indoor dry bulb temperature.

20 TON - LGM240U4M WITH HUMIDITROL™+ OPERATING

Outdoor Air Temperature Entering Outdoor Coil															Coil									
Entering			65°F	F					75°I	F					85°F	:					95°I	=		
Wet Bulb Tempera-	Total Air	Cool	Comp. Motor		nsible Ratio		Air	Cool	Comp. Motor	Sei Total	nsible Ratio	-	Air	Cool	Comp. Motor		nsible Ratio		Total Air	Cool	Comp. Motor		nsible Ratio	
ture	Vol.	Сар.	Input	D	ry Bu	lb	Vol.	Сар.	Input	D	ry Bu	lb	Vol.	Сар.	Input	D	ry Bu	lb	Vol.	Cap.	Input	D	ry Bul	b
	cfm	kBtuh	kW	75°F	Dry Bulb V		cfm	kBtuh	kW	75°F	80°F	85°F	cfm	kBtuh	kW	75°F	80°F	85°F	cfm	kBtuh	kW	75°F	80°F	85°F
63°F	2340	52.2	6.40	0.52	0.51	0.74	2208	40.6	6.93	0.10	0.42	0.63	2215	30.0	7.40	0.01	0.18	0.64	1968	23.9	7.66	0.00	0.18	0.64
67°F	1807	60.4	6.59	0.25	0.25	0.42	1818	50.5	7.07	0.01	0.12	0.33	1751	43.2	7.35	0.00	0.01	0.19	1575	37.3	7.55	0.00	0.00	0.01
71°F	1909	68.1	6.77	0.13	0.13	0.13	1506	59.0	7.12	0.01	0.01	0.14	1440	53.8	7.25	0.00	0.00	0.00	1328	49.0	7.37	0.00	0.00	0.00

NOTE - The variable capacity compressor and one fixed capacity compressor operate at maximum Hz, indoor blower operating at optimal CFM and outdoor fan operating to maintain a discharge air temperature target equal to indoor dry bulb temperature.

25 TON - LGM300U4M WITH HUMIDITROL™+ OPERATING

									Outdo	or Air	Temp	eratu	re Ente	ering O	utdoor (Coil								
Entering			65°l	F					75°I	-					85°F	-					95°I	=		
Wet Bulb Tempera-	Total Air	Cool	Comp. Motor		al Ratio (S/T)		Air	Cool		Sei Total	nsible Ratio		Total Air	Cool	Comp. Motor		nsible Ratio		Total Air	Cool	Comp. Motor		nsible Ratio	
ture	Vol.	Cap.	Input	D	Dry Bulb Vo		Vol.	Сар.	Input	D	ry Bu	lb	Vol.	Сар.	Input	D	ry Bul	lb	Vol.	Cap.	Input	D	ry Bul	b
	cfm	kBtuh	kW	75°F	80°F	85°F	cfm	kBtuh	kW	75°F	80°F	85°F	cfm	kBtuh	kW	75°F	80°F	85°F	cfm	kBtuh	kW	75°F	80°F	85°F
63°F	2878	56.5	8.32	0.44	0.80	1.00	2650	48.7	8.54	0.40	0.79	1.00	2709	39.8	8.91	0.28	0.40	0.73	2430	33.7	9.09	0.00	0.40	0.61
67°F	2259	69.7	8.38	0.18	0.45	1.00	2236	57.5	8.53	0.19	0.30	0.95	2347	54.9	8.78	0.13	0.20	0.28	1900	46.6	9.03	0.00	0.16	0.23
71°F	2291	73.3	8.45	0.12	0.20	0.57	2107	74.5	8.45	0.12	0.13	0.19	1690	65.2	8.74	0.04	0.11	0.10	1533	56.4	9.03	0.00	0.05	0.11

NOTE - The variable capacity compressor and one fixed capacity compressor operate at maximum Hz, indoor blower operating at optimal CFM and outdoor fan operating to maintain a discharge air temperature target equal to indoor dry bulb temperature.

BLOWER DATA

BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL & AIR FILTERS IN PLACE FOR ALL UNITS ADD:

- 1 Wet indoor coil air resistance of selected unit.
- 2 Any factory installed options air resistance (heat section, Economizer, etc.)
- 3 Any field installed accessories air resistance (heat section, duct resistance, diffuser, etc.)

Then determine from blower table blower motor output and drive required. See page 34 for wet coil and option/accessory air resistance data. See page 34 for factory installed drive kit specifications.

MINIMUM AIR VOLUME REQUIRED FOR DIFFERENT GAS HEAT SIZES

Low (L), Standard (S) and Medium Heat (M) - 4500 cfm minimum High Heat (H) - 5125 cfm minimum

	30	ВНР	-	:	;	:	:	4.15	4.45	4.70	2.00	5.30	2.60	5.90	6.25	6.55	06.9	7.25	7.60	8.00	8.35	8.75	9.15	9.60	10.05	10.45	10.90	11.40	;	:	;	:	;	:	;	:
	2.60	RPM	:	;	:	:	:	1205	1210	1215	1225	1230	1235	1240	1250	1255	1265	1270	1275	1285	1290	1300	1305	1315	1325	1330	1340	1350	:	-	:	-	:		:	:
		ВНР	:	:	1		1	3.85	4.10	4.35	4.65	4.90	5.20	5.50	5.80	6.10	6.45	6.75	7.10	7.45	7.85	8.25	8.60	9.00	9.40	9.85	10.30	10.80	11.20	:	:	:	:		:	
	2.40	RPM	:	:	:		:	1160	1165	1175	1180	1185	1195	1200	1205	1215	1220	1225	1235	1240	1250	1260	1265	1275	1280	1290		1310	1315	:	-	:	-	-	-	:
		BHP	:	:	:		3.30	3.55	3.75	4.05	4.25	4.50	4.80	5.10	5.35	5.65	5.95	6.30	09.9	6.95	7.30	7.65	8.05	8.40	8.85	9.25	9.65	10.10	10.55	11.05	11.50	-	-		-	
	2.20	RPM	:	:	:	: :	1110	1115	1120	1130	1135	1140	1150	1155	1160	1170	1175	1185	1190	1200	1205	1215	1225	1230	1240	1250		1265 1	1275 1	1285 1	1295 1	:	-		-	:
		BHP	:	:	:		3.00	3.25	3.45	3.65	3.90	4.15	4.40	4.70	4.95	5.20	5.50	5.85	6.10	6.45	`	7.15	7.50	7.85	8.25	8.65	9.05	9.40	9.85	10.30	10.80	11.25	-		-	
	2.00	RPM	:		:	:	090		1075	080	1085	1095	1100	1110 /	1115 4	1120	1130	1140	1145 (1155 (1160 (1170	1180	1185	1195			1220	1230	1240 1	250 1	260 1		-	-	
		BHP	:		:	2.55	2.70	2.90	3.10 1	3.30	3.55 1	3.80 1	4.00 1	4.25	4.50	4.80	5.05	5.35	5.60 1	5.95	6.25	6.60	_	7.25	7.65 1	8.05 1	_	8.75 1	9.20 1	9.60	10.05	0.50	11.00	11.45	<u> </u>	-
(Pa)	1.80	RPM	1	:	:	1005	1010		1025	1030	1040	1045	1050 4	7 090	1065 4	1075 4	1080	1090	1095	1105 5	1115 6	1125 6	1130 6	1140 7	1150 7	1160 8		1175 8	1185 9	1195 6	1205 1	1215	1225 1	235 1	<u> </u>	:
Gauge	-	BHP R	1	<u> </u>	2.10	.25 1	2.45 1	2.60 1	2.80 1	3.00 1	3.20 1	3.40 1	3.65 1	3.85 1	4.10 1	4.35 1	4.60 1	4.85 1	5.10 1	5.40 1	5.75	6.05 1	6.35 1	_	7.05 1		7.75 1	8.15 1	8.55 1	8.95 1	9.40 1	9.80	10.25 1	10.70 1	11.20	<u>.</u> :
Water	1.60	RPM B		<u> </u>	950 2	955 2			970 2	980	985 3	995 3	000	010 3	015 4	025 4	030 4	040 4	045 5	055 5	900					1110 7		1130 8	1140 8	1150 8	1160 9	1170 6	1180 10	1190 10	200 1	· :
TOTAL STATIC PRESSURE - Inches Water Gauge (Pa)		BHP R	:	1.70	1.85	2.00	2.15 9	2.30	2.45 9	2.65	2.85 5	3.05 6	3.25 1	3.45	3.65	3.90	4.15	4.40	4.65	4.95	5.25	5.50	5.80 1	6.10 1	6.45	6.80	_	7.50 1	7.85 1	8.25	8.65	9.05	9.55	10.00	10.45 1	- 06.01
SURE -	1.40	RPM B	:	885 1	890 1	900 2	905 2	910 2	915 2	925 2	930 2	940 3	945 3	955 3	960 3	970 3	975 4	985 4	995 4	005 4	015 5	020 5	030 2	040 6	020 0	0901		080 2	2 060	1100 8	1110 8	1120 9	1135 9	1145 10	1155 10	1165 10
PRES		BHP R	1.30	1.45 8	1.60	_	1.85 9		2.15 9	2.35 9	2.50 9	2.70 9	2.90 9	3.05 9	3.25 9	3.45 9	3.70 9	3.95 9	4.20 9	4.45 10	4.65 10	4.95 10	5.25 10	5.50 10	5.85 10	6.15 10	6.45 10	_	7.20 10	7.60 1	7.95 1	8.35 1	8.75 1	9.20 1	9.65 1	10.05
STATIC	1.20	RPM B	820 1.	825 1.	830 1.	840 1.	845 1.	850 2.	855 2.	865 2.	870 2.	880 2.	890 2.	895 3.	905 3.	910 3.	920 3.	930 3.	940 4.	950 4.		965 4.	975 5.	985 5.	995 5.	005 6.		025 6.	1040 7.	1050 7.	.7 090	070 8.	080 8.	095 9.	105 9.	1115 10
POTAL		HP R	.10 8.	20 8	30 8	.45 8				_			_		2.85 9				3.70			.45 9				_	5.85 10	_	.55 10	90 10	20 10	60 10	00 10	.40 10	85 11	.30 11
	1.00	RPM B	755 1.	760 1.	.05 1.	775 1.	_	_	795 1.	800 2	810 2.	815 2.	7	835 2.	840 2.	850 3.	860 3.	870 3.	880 3.		900 4	4			_			970 6.	982 6	995 6.	1005 7	1015 7.	1030 8.	1040 8.	1055 8.	o
		BHP R	0.90	1.00 7	1.10 7	1.20 7	1.30 7	1.40 7	1.55 7	1.65	1.80 8	1.95 8	_		2.45 8	2.60 8	2.80 8			3.40 8		3.85 9	_					5.50 8	5.85	6.15	<u>`</u>	`	7.20 10		8.05 1	
	0.80	RPM E	089	685 1	695 1	700		_	725 1		740 1	750 1		765 2	775 2	_		_	815 3				_			_		910 5	925 5	932 6	920 6	9 096	970 7	985 7	_	1010 8
		BHP	0.70	0.75		0.95		1.10	1.25	1.35	1.45		_	1.85	2.00	2.15			2.70		3.10		3.55					4.85	5.15		_	6.15	6.45		7.25 1	
	09.0	RPM	009	610	_		_			655		029				710		_	745			_	190		_		_	820	_	875	885	006	910	925	_	950
		ВНР	0.50	0.55	09.0	0.70	0.75	0.85	06.0	1.00	1.10	1.25	1.35	1.45	1.60	1.75	1.90	2.05	2.20	2.35	2.60	2.75	3.00	3.20	3.40	3.65	3.90	4.20	4.45	4.75	5.05	5.40	5.65	00.9	6.40	08.9
En El	0.40	RPM	202	515			_		_		575	585	262	605	615	630		_	999			_	715		_		_		190	805	_	835	845	860		890
		ВНР	0.30	0.35	0.40	0.45	0.50	0.55	09.0	0.70	0.75	0.85	0.95	1.05	1.15	1.30	1.40	1.55	1.70	1.85	2.00	2.20	2.40	2.55	2.80	3.00	3.25	3.50	3.75	4.00	4.30	4.60	4.90	5.20	5.55	2.90
- 57125	0.20	RPM	385	395	405						470		_	505	520	530	545	260	220	585					655				715			092	775	190		820
Hign Heat (H) - 5125 стт minimum 	Air Volume		2750	3000	3250 4	3500	3750		4250	4500	4750	2000	5250	2200	5750	0009	6250	0059	6750	2000			7750 (_			0006	9250	0026	_	10,000	10,250	-	10,750 8	

BLOWER DATA

FACTORY INSTALLED BELT DRIVE KIT SPECIFICATIONS

Motor Efficiency	Nominal hp	Maximum hp	Drive Kit Number	RPM Range	
Standard	2	2.30	1	535 - 725	
Standard	2	2.30	2	710 - 965	
Standard	3	3.45	1	535 - 725	
Standard	3	3.45	2	710 - 965	
Standard	5	5.75	3	685 - 856	
Standard	5	5.75	4	850 - 1045	
Standard	5	5.75	5	945 - 1185	
Standard	7.5	8.63	6	850 - 1045	
Standard	7.5	8.63	7	945 - 1185	
Standard	7.5	8.63	8	1045 - 1285	
Standard	10	11.50	7	945 - 1185	
Standard	10	11.50	10	1045 - 1285	
Standard	10	11.50	11	1135 - 1365	

NOTE - Using total air volume and system static pressure requirements determine from blower performance tables rpm and motor output required. Maximum usable output of motors furnished are shown. In Canada, nominal motor output is also maximum usable motor output. If motors of comparable output are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

NOTE – Blower motor service factor = 1.0.

FACTORY INSTALLED OPTIONS/FIELD INSTALLED ACCESSORY AIR RESISTANCE

Air	Wet Ind		Humiditrol™+	Gas He	eat Excha							ontal Curb
Volume cfm	156, 180	210, 240, 300	Reheat Coil	Low/ Standard Heat	Medium Heat	High Heat	Economizer		Filters		156 thru 240	300
	in. w.g.	in. w.g.	in. w.g.	in. w.g.	in. w.g.	in. w.g.	in. w.g.	MERV 8	MERV 13	MERV 16	in. w.g.	in. w.g.
2750	.01	.02	.01	.02	.04	.05		.01	.03	0.06	.03	-
3000	.01	.02	.01	.03	.04	.05		.01	.03	0.06	.04	-
3250	.01	.03	.01	.03	.05	.06		.01	.04	0.07	.04	.01
3500	.01	.03	.02	.03	.05	.06		.01	.04	0.08	.05	.01
3750	.01	.03	.02	.04	.06	.07		.01	.04	0.08	.05	.01
4000	.02	.04	.02	.04	.06	.07		.01	.04	0.09	.06	.02
4250	.02	.04	.02	.04	.06	.08		.01	.05	0.10	.07	.02
4500	.02	.05	.02	.05	.07	.09		.01	.05	0.10	.07	.02
4750	.02	.05	.02	.05	.08	.10		.02	.05	0.11	.08	.03
5000	.02	.05	.02	.05	.09	.11		.02	.06	0.12	.08	.03
5250	.02	.06	.03	.06	.10	.12		.02	.06	0.12	.09	.04
5500	.02	.07	.03	.06	.10	.13		.02	.06	0.13	.10	.04
5750	.03	.07	.03	.06	.11	.14		.02	.07	0.14	.11	.05
6000	.03	.08	.03	.07	.12	.15		.03	.07	0.14	.11	.06
6250	.03	.08	.03	.07	.12	.16	.01	.03	.07	0.15	.12	.07
6500	.03	.09	.04	.08	.13	.17	.02	.03	.08	0.16	.13	.08
6750	.04	.10	.04	.08	.14	.18	.03	.03	.08	0.17	.14	.08
7000	.04	.10	.04	.09	.15	.19	.04	.04	.08	0.17	.15	.09
7250	.04	.11	.04	.09	.16	.20	.05	.04	.09	0.18	.16	.10
7500	.05	.12	.05	.10	.17	.21	.06	.04	.09	0.19	.17	.11
8000	.05	.13	.05	.11	.19	.24	.09	.05	.10	0.21	.19	.13
8500	.06	.15	.05	.12	.20	.26	.11	.05	.10	0.22	.21	.15
9000	.07	.16	.06	.13	.23	.29	.14	.06	.11	0.24	.24	.17
9500	.08	.18	.07	.14	.25	.32	.16	.07	.12	0.25	.26	.19
10,000	.08	.20	.07	.16	.27	.35	.19	.07	.12	0.27	.29	.21
10,500	.09	.22	.08	.17	.30	.38	.22	.08	.13	0.29	.31	.24
11,000	.11	.24	.08	.18	.31	.40	.25	.09	.14	0.30	.34	.27

BLOWER DATA

POWER EXHAUST FAN PERFORMANCE

Return Air System Static Pressure	Air Volume Exhausted
in. w.g.	cfm
0.00	8630
0.05	8210
0.10	7725
0.15	7110
0.20	6470
0.25	5790
0.30	5060
0.35	4300
0.40	3510
0.45	2690
0.50	1840

CEILING DIFFUSER AIR RESISTANCE - in. w.g.

A !			Step-Dow	n Diffuser	Flush Diffuser			
Air Volume		RTD11-185S			RTD11-275S			
cfm	2 Ends Open	1 Side/2 Ends Open	All Ends & Sides Open	2 Ends Open	1 Side/2 Ends Open	All Ends & Sides Open	FD11-185S	FD11-275S
5000	0.51	0.44	0.39				0.27	
5200	0.56	0.48	0.42				0.30	
5400	0.61	0.52	0.45				0.33	
5600	0.66	0.56	0.48				0.36	
5800	0.71	0.59	0.51				0.39	
6000	0.76	0.63	0.55	0.36	0.31	0.27	0.42	0.29
6200	0.80	0.68	0.59				0.46	
6400	0.86	0.72	0.63				0.50	
6500				0.42	0.36	0.31		0.34
6600	0.92	0.77	0.67				0.54	
6800	0.99	0.83	0.72				0.58	
7000	1.03	0.87	0.76	0.49	0.41	0.36	0.62	0.40
7200	1.09	0.92	0.80				0.66	
7400	1.15	0.97	0.84				0.70	
7500				0.51	0.46	0.41		0.45
7600	1.20	1.02	0.88				0.74	
8000				0.59	0.49	0.43		0.50
8500				0.69	0.58	0.50		0.57
9000				0.79	0.67	0.58		0.66
9500				0.89	0.75	0.65		0.74
10,000				1.00	0.84	0.73		0.81
10,500				1.10	0.92	0.80		0.89
11,000				1.21	1.01	0.88		0.96

CEILING DIFFUSER AIR THROW DATA - ft.

Madal	Air Maluma	¹ Effective Thr	¹ Effective Throw Range - ft.		Air Values s	¹ Effective Throw Range - ft.		
Model No.	Air Volume cfm	RTD11-185S Step-Down	FD11-185S Flush	Model No.	Air Volume cfm	RTD11-275S Step-Down	FD11-275S Flush	
	5600	39 - 49	28 - 37		7200	33 - 38	26 - 35	
	5800	42 - 51	29 - 38	210 240 300	7400	35 - 40	28 - 37	
156	6000	44 - 54	40 - 50		7600	36 - 41	29 - 38	
180	6200	45 - 55	42 - 51		7800	38 - 43	40 - 50	
	6400	46 - 55	43 - 52		8000	39 - 44	42 - 51	
	6600	47 - 56	45 - 56		8200	41 - 46	43 - 52	
hrow is the horizontal or vertical distance an airstream travels on leaving the outlet					8400	43 - 49	44 - 54	
diffuser before en.	the maximum velocity i	is reduced to 50 ft. per		8600	44 - 50	46 - 57		

47 - 55

48 - 59

8800

ELECTRICAL DATA 13 TON

	Model No.	LGM156U4						
¹ Voltage - 60Hz			208/230V-3ph	1	460V-3ph			
Compressor 1	Rated Load Amps	13.3			5.9			
_	Locked Rotor Amps		21		11			
Compressor 2	Rated Load Amps		14.5		6.3			
_	Locked Rotor Amps		98		55			
Compressor 3	Rated Load Amps		14.5		6.3			
_	Locked Rotor Amps		98		55			
Outdoor Fan Motors (4)	Full Load Amps (total)	(44.0)		1.4 (5.6)				
Power Exhaust (2) 0.33 HP	Full Load Amps (total)	2.4 (4.8)			1.3 (2.6)			
Service Outlet 115V GI	FI (amps)	15			15			
Indoor Blower	Horsepower	2	3	5	2	3	5	
Motor –	Full Load Amps	7.5	10.6	16.7	3.4	4.8	7.6	
² Maximum	Unit Only	70	80	90	35	35	40	
Overcurrent Protection (MOCP)	With (2) 0.33 HP Power Exhaust	80	80	90	35	35	40	
³ Minimum	Unit Only	65	68	75	30	31	34	
Circuit – Ampacity (MCA)	With (2) 0.33 HP Power Exhaust	70	73	80	32	34	37	

ELECTRICAL DATA	15 TON
LLLUINIUAL VAIA	13 1014

	Model No.	LGM180U4					
¹ Voltage - 60Hz			208/230V-3ph	1	460V-3ph		
Compressor 1	Rated Load Amps	15.7			6.8		
_	Locked Rotor Amps		21		11		
Compressor 2	Rated Load Amps	16			7.8		
_	Locked Rotor Amps	110			52		
Compressor 3	Rated Load Amps	16			7.8		
_	Locked Rotor Amps		110		52		
Outdoor Fan Motors (4)	Full Load Amps (total)		2.8 (11.2)		1.4 (5.6)		
Power Exhaust (2) 0.33 HP	Full Load Amps (total)	2.4 (4.8)			1.3 (2.6)		
Service Outlet 115V G	FI (amps)	15			15		
Indoor Blower	Horsepower	3	5	7.5	3	5	7.5
Motor	Full Load Amps	10.6	16.7	24.2	4.8	7.6	11
² Maximum	Unit Only	80	90	110	40	45	50
Overcurrent Protection (MOCP)	With (2) 0.33 HP Power Exhaust	90	100	110	45	45	50
³ Minimum	Unit Only	74	80	90	35	38	42
Circuit Ampacity (MCA)	With (2) 0.33 HP Power Exhaust	79	85	94	38	41	45

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.

¹ Extremes of operating range are plus and minus 10% of line voltage.

² HACR type breaker or fuse.

³ Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

ELECTRICAL DATA 17.5 TON

	Model No.			LGM	210U4	10U4		
¹ Voltage - 60Hz			208/230V-3ph	1		460V-3ph		
Compressor 1	Rated Load Amps		13.3			5.9		
_	Locked Rotor Amps		21			11		
Compressor 2	essor 2 Rated Load Amps 14.5			6.3				
_	Locked Rotor Amps		98			55		
Compressor 3	Rated Load Amps		14.5			6.3		
-	Locked Rotor Amps	d Rotor Amps 98 d Load Amps 14.5 d Rotor Amps 98 ull Load Amps (total) (16.8) ull Load Amps 2.4		55				
Compressor 4	Rated Load Amps		14.5			6.3		
_	Locked Rotor Amps				55			
Outdoor Fan	Full Load Amps				1.8			
Motors (6)	(total)					(8.4)		
Power Exhaust	Full Load Amps				1.3			
(2) 0.33 HP	(total)		(4.8)			(2.6)		
Service Outlet 115V G	FI (amps)		15					
Indoor Blower	Horsepower	3	5	7.5	3	5	7.5	
Motor	Full Load Amps	10.6	16.7	24.2	4.8	7.6	11	
² Maximum	Unit Only	100	110	125	45	50	50	
Overcurrent Protection (MOCP)	With (2) 0.33 HP Power Exhaust	100	110	125	45	50	60	
³ Minimum	Unit Only	88	95	104	40	43	47	
Circuit Ampacity (MCA)	With (2) 0.33 HP Power Exhaust	93	100	109	43	46	50	
ELECTRICAL D	ATA						20 TON	

Model No.	LGM2	240U4
¹ Voltage - 60Hz	208/230V-3ph	460V-3ph

¹ Voltage - 60Hz			208/230V-3ph	1		460V-3ph		
Compressor 1	Rated Load Amps	16.8			7.8			
_	Locked Rotor Amps		21			11		
Compressor 2	Rated Load Amps		13.2			6.3		
_	Locked Rotor Amps		93			60		
Compressor 3	Rated Load Amps		13.2			6.3		
_	Locked Rotor Amps	16.8 21 21 25 28 29 39 30 30 30 30 30 30 30 30 30 30 30 30 30		60				
Compressor 4	Rated Load Amps		13.2			6.3		
_	Locked Rotor Amps	93			60			
Outdoor Fan	Full Load Amps				1.4			
Motors (6)	(total)	(16.8)			(8.4)			
Power Exhaust	Full Load Amps					1.3		
(2) 0.33 HP	(total)		(4.8)			(2.6)		
Service Outlet 115V G	FI (amps)		15			15		
Indoor Blower	Horsepower	5	7.5	10	5	7.5	10	
Motor	Full Load Amps	16.7	24.2	30.8	7.6	11	14	
² Maximum	Unit Only	110	125	125	50	50	60	
Overcurrent Protection (MOCP)	With (2) 0.33 HP Power Exhaust	110	125	125	50	60	60	
³ Minimum	Unit Only	95	104	112	45	49	53	
Circuit Ampacity (MCA)	With (2) 0.33 HP Power Exhaust	99	109	117	48	52	56	

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.

¹ Extremes of operating range are plus and minus 10% of line voltage.

² HACR type breaker or fuse.

³ Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

ELECTRICAL DATA 25 TON

	Model No.			LGM	300U4			
¹ Voltage - 60Hz			208/230V-3ph			460V-3ph		
Compressor 1	Rated Load Amps		16.8		8.9			
_	Locked Rotor Amps		21			11		
Compressor 2	Rated Load Amps		19.6			8.2		
_	Locked Rotor Amps		136			66.1		
Compressor 3	Rated Load Amps		22.4			10.6		
_	Locked Rotor Amps		149			75		
Compressor 4	Rated Load Amps		22.4			10.6		
_	Locked Rotor Amps		149		75			
Outdoor Fan	Full Load Amps		2.8		1.4			
Motors (6)	(total)	(16.8)			(8.4)			
Power Exhaust	Full Load Amps		2.4			1.3		
(2) 0.33 HP	(total)		(4.8)			(2.6)		
Service Outlet 115V G	FI (amps)		15			15		
Indoor Blower	Horsepower	5	7.5	10	5	7.5	10	
Motor	Full Load Amps	16.7	24.2	30.8	7.6	11	14	
² Maximum	Unit Only	125	150	150	60	70	70	
Overcurrent Protection (MOCP)	With (2) 0.33 HP Power Exhaust	150	150	150	70	70	80	
³ Minimum	Unit Only	121	129	137	57	61	65	
Circuit Ampacity (MCA)	With (2) 0.33 HP Power Exhaust	126	134	142	60	64	67	

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.

¹ Extremes of operating range are plus and minus 10% of line voltage.

² HACR type breaker or fuse.

³ Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

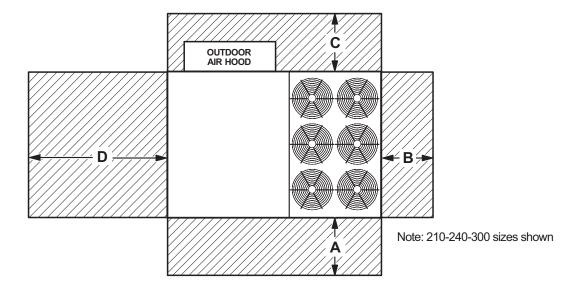
ELECTRICAL ACCESSORIES

DISCONNECTS

Voltage	208V	240V	208V	240V	208V	240V	460V	460V	460V
Model No.					LGM156U4	•			
Blower Motor HP	2	2		3	į	5	2	3	5
Unit Only	54W88	54W88	54W88	54W88	54W88	54W88	54W88	54W88	54W88
Unit w/ Power Exhaust	54W88	54W88	54W88	54W88	54W88	54W88	54W88	54W88	54W88
Model No.					LGM180U4				
Blower Motor HP	3	3	į	5	7	.5	3	5	7.5
Unit Only	54W88	54W88	54W88	54W88	54W89	54W89	54W88	54W88	54W88
Unit w/ Power Exhaust	54W88	54W88	54W88	54W88	54W89	54W89	54W88	54W88	54W88
Model No.			,	,	LGM210U4	,	,	,	,
Blower Motor HP	3	3	į	5	7.5		3	5	7.5
Unit Only	54W88	54W88	54W89	54W89	54W89	54W89	54W88	54W88	54W88
Unit w/ Power Exhaust	54W89	54W89	54W89	54W89	54W89	54W89	54W88	54W88	54W88
Model No.					LGM240U4			,	
Blower Motor HP	Ę	5	7.	.5	1	0	5	7.5	10
Unit Only	54W89	54W89	54W89	54W89	54W89	54W89	54W88	54W88	54W88
Unit w/ Power Exhaust	54W89	54W89	54W89	54W89	54W89	54W89	54W88	54W88	54W88
Model No.		LGM300U4							
Blower Motor HP	Į	5	7.	.5	1	0	5	7.5	10
Unit Only	54W89	54W89	54W89	54W89	54W89	54W89	54W88	54W88	54W88
Unit w/ Power Exhaust	54W89	54W89	54W89	54W89	90W82	90W82	54W88	54W88	54W88

INSTALLATION CLEARANCES

Unit With Economizer



¹ Unit Clearance		A	ı	В	(С	I)	Тор
- Onit Clearance	in.	mm	in.	mm	in.	mm	in.	mm	Clearance
Service Clearance	60	1524	36	914	36	934	66	1676	
Clearance to Combustibles	36	914	1	25	1	25	1	25	Unobstructed
Minimum Operation Clearance	45	1143	36	914	36	914	41	1041	

NOTE - Entire perimeter of unit base requires support when elevated above the mounting surface.

Minimum Operation Clearance - Required clearance for proper unit operation.

OUTDOOR SOUND DATA								
Unit	Octave E	Band Sound	Power Leve	ls dBA, re 10	D ⁻¹² Watts - C	enter Freque	ency - Hz	¹ Sound Rating
Model Number	125	250	500	1000	2000	4000	8000	Number (dBA)
156, 180	71	76	80	78	74	70	63	86
210, 240, 300	73	81	86	84	78	73	67	90

Note - The octave sound power data does not include tonal corrections.

¹ Service Clearance - Required for removal of serviceable parts.

Clearance to Combustibles - Required clearance to combustible material.

¹ Sound Rating Number according to AHRI Standard 370-2001 (includes pure tone penalty).

Sound Rating Number is the overall A-Weighted Sound Power Level (LwA), dBA (100 Hz to 10,000 Hz).

WEIGHT DA	WEIGHT DATA UNIT							
Model Number	N	et	Ship	ping				
woder Number	lbs.	kg	lbs.	kg				
156 Base Unit	2240	1016	2440	1107				
156 Max. Unit	2540	1152	2740	1243				
180 Base Unit	2250	1021	2450	1111				
180 Max. Unit	2550	1157	2750	1247				
210 Base Unit	2370	1075	2570	1166				
210 Max. Unit	2670	1211	2870	1302				
240 Base Unit	2520	1143	2720	1234				
240 Max. Unit	2820	1279	3020	1370				
300 Base Unit	2570	1166	2770	1256				
300 Max. Unit	2870	1302	3070	1393				

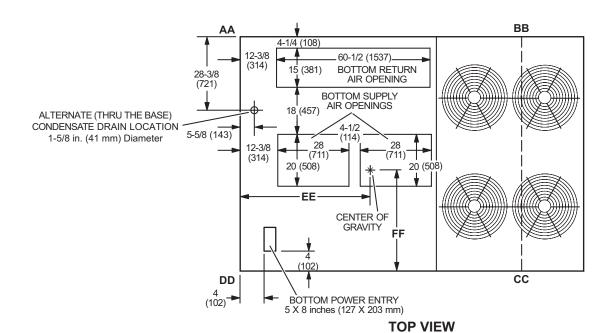
Max. Unit - The unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust Fans, Controls, etc.). Does not include accessories external to unit.

Economizer Eco	WEIGHT DATA	OPTI0	NS / ACCESSORIES
CELLING DIFFUSERS Step-Down	Description	Shipping	g Weight
RTD11-185S 168	Social	lbs.	kg
RTD11-276S 238 108 76 76 76 76 76 76 76 7	CEILING DIFFUSERS		
Flush FD11-185S 168 76 FD11-275S 238 108 108 Transitions C1DIFF3QC-1 80 36 36 C1DIFF3QC-1 75 34 C1DIFF3QC-1 75 75 75 75 75 75 75 7	Step-Down RTD11-185S	168	76
FD11-275S 238 108	RTD11-275S	238	108
Campaign	Flush FD11-185S	168	76
Camera Table Tab	FD11-275S	238	108
ECONOMIZER / OUTDOOR AIR / EXHAUST	Transitions C1DIFF33C-1	80	36
Economizer Dampers 102 46	C1DIFF34C-1	75	34
Economizer Dampers	ECONOMIZER / OUTDOOR AIR / EXHAUST		
Barometric Relief Dampers (downflow) 30 14	Economizer		
Barometric Relief Dampers (horizontal) 20 9 Outdoor Air Damper Hood (downflow) 65 29 Outdoor Air Damper Section (downflow) - Automatic (including Hood) 18 39 Outdoor Air Damper Section (downflow) - Manual (including Hood) 10 22 Power Exhaust 62 28 GAS HEAT EXCHANGER (NET WEIGHT)	Economizer Dampers	102	46
Outdoor Air Damper Hood (downflow) 65 29 Outdoor Air Dampers 39 Outdoor Air Damper Section (downflow) - Automatic (including Hood) 10 22 Power Exhaust 62 28 GAS HEAT EXCHANGER (NET WEIGHT) 8 8 Medium Heat (adder over standard heat) 18 8 High Heat (adder over standard heat) 64 29 HUMIDITROL*+ HOT GAS REHEAT SYSTEM 8 8 Humiditrol+ Dehumidification Option (Net Weight) 50 23 ROOF CURBS 4 29 Hybrid Roof Curbs, Downflow 50 23 8 in. height 75 34 14 in. height 105 48 18 in. height 125 57 24 in. height 155 70 Adjustable Pitch Curb, Downflow 262 119 Horizontal, Standard 470 213 26 in. height 505 229 30 in. height 575 261 41 in. height 610 277	Barometric Relief Dampers (downflow)	30	14
Outdoor Air Dampers Outdoor Air Damper Section (downflow) - Automatic (including Hood) 18 39 Outdoor Air Damper Section (downflow) - Manual (including Hood) 10 22 Power Exhaust 62 28 GAS HEAT EXCHANGER (NET WEIGHT) Wedium Heat (adder over standard heat) 18 8 Heigh Heat (adder over standard heat) 64 29 HUMIDITROL* HOT GAS REHEAT SYSTEM Welium Heat (adder over standard heat) 50 23 ROOF CURBS Hybrid Roof Curbs, Downflow 50 23 8 in. height 75 34 14 in. height 105 48 18 in. height 125 57 24 in. height 155 70 Adjustable Pitch Curb, Downflow 4 213 14 in. height 262 119 Horizontal, Standard 470 213 26 in. height 505 229 30 in. height 575 261 41 in. height 610 277	Barometric Relief Dampers (horizontal)	20	9
Outdoor Air Damper Section (downflow) - Automatic (including Hood) 18 39 Outdoor Air Damper Section (downflow) - Manual (including Hood) 10 22 Power Exhaust 62 28 GAS HEAT EXCHANGER (NET WEIGHT) Wedium Heat (adder over standard heat) 18 8 High Heat (adder over standard heat) 64 29 HUMIDITROL"+ HOT GAS REHEAT SYSTEM Humiditrol+ Dehumidification Option (Net Weight) 50 23 ROOF CURBS Hybrid Roof Curbs, Downflow 8 in. height 75 34 14 in. height 105 48 18 in. height 125 57 24 in. height 155 70 Adjustable Pitch Curb, Downflow 14 in. height 262 119 Horizontal, Standard 26 in. height 470 213 26 in. height 505 229 30 in. height 575 261 41 in. height 610 277 PACKAGING	· · · · · · ·	65	29
Outdoor Air Damper Section (downflow) - Manual (including Hood) 10 22 Power Exhaust 62 28 GAS HEAT EXCHANGER (NET WEIGHT) Wedium Heat (adder over standard heat) 18 8 High Heat (adder over standard heat) 64 29 HUMIDITROL"+ HOT GAS REHEAT SYSTEM Humiditrol+ Dehumidification Option (Net Weight) 50 23 ROOF CURBS Hybrid Roof Curbs, Downflow 75 34 14 in. height 105 48 18 in. height 125 57 24 in. height 155 70 Adjustable Pitch Curb, Downflow 262 119 Horizontal, Standard 26 119 Horizontal, Standard 470 213 26 in. height 505 229 30 in. height 575 261 41 in. height 610 277 PACKAGING	<u> </u>		
Power Exhaust 62 28 GAS HEAT EXCHANGER (NET WEIGHT)	. , , , , , , , , , , , , , , , , , , ,	18	39
GAS HEAT EXCHANGER (NET WEIGHT) 8 Medium Heat (adder over standard heat) 18 8 High Heat (adder over standard heat) 64 29 HUMIDITROL"+ HOT GAS REHEAT SYSTEM Humiditrol+ Dehumidification Option (Net Weight) 50 23 ROOF CURBS Hybrid Roof Curbs, Downflow 8 in. height 75 34 14 in. height 105 48 18 in. height 125 57 24 in. height 155 70 Adjustable Pitch Curb, Downflow 14 in. height 262 119 Horizontal, Standard 26 in. height 470 213 37 in. height 505 229 30 in. height 575 261 41 in. height 610 277 PACKAGING			22
Medium Heat (adder over standard heat) 18 8 High Heat (adder over standard heat) 64 29 HUMIDITROL"+ HOT GAS REHEAT SYSTEM Humiditrol+ Dehumidification Option (Net Weight) 50 23 ROOF CURBS Hybrid Roof Curbs, Downflow 8 in. height 75 34 14 in. height 105 48 18 in. height 125 57 24 in. height 155 70 Adjustable Pitch Curb, Downflow 14 in. height 262 119 Horizontal, Standard 26 in. height 470 213 37 in. height 505 229 30 in. height 575 261 41 in. height 610 277 PACKAGING	Power Exhaust	62	28
High Heat (adder over standard heat) 64 29 HUMIDITROL"+ HOT GAS REHEAT SYSTEM Humiditrol+ Dehumidification Option (Net Weight) 50 23 ROOF CURBS Hybrid Roof Curbs, Downflow 8 in. height 75 34 14 in. height 105 48 18 in. height 125 57 24 in. height 155 70 Adjustable Pitch Curb, Downflow 14 in. height 262 119 Horizontal, Standard 26 in. height 470 213 37 in. height 505 229 30 in. height 575 261 41 in. height 610 277 PACKAGING	GAS HEAT EXCHANGER (NET WEIGHT)		
HUMIDITROL"+ HOT GAS REHEAT SYSTEM Humiditrol+ Dehumidification Option (Net Weight) 50 23 ROOF CURBS Hybrid Roof Curbs, Downflow 8 in. height 75 34 14 in. height 105 48 18 in. height 125 57 24 in. height 155 70 Adjustable Pitch Curb, Downflow 14 in. height 262 119 Horizontal, Standard 470 213 26 in. height 470 213 37 in. height 505 229 30 in. height 575 261 41 in. height 610 277 PACKAGING	Medium Heat (adder over standard heat)	18	8
Humiditrol + Dehumidification Option (Net Weight) 50 23	High Heat (adder over standard heat)	64	29
ROOF CURBS Hybrid Roof Curbs, Downflow 8 in. height 75 34 14 in. height 105 48 18 in. height 125 57 24 in. height 155 70 Adjustable Pitch Curb, Downflow 14 in. height 262 119 Horizontal, Standard 26 in. height 470 213 37 in. height 505 229 30 in. height 575 261 41 in. height 610 277 PACKAGING	HUMIDITROL"+ HOT GAS REHEAT SYSTEM		
ROOF CURBS Hybrid Roof Curbs, Downflow 8 in. height 75 34 14 in. height 105 48 18 in. height 125 57 24 in. height 155 70 Adjustable Pitch Curb, Downflow 14 in. height 262 119 Horizontal, Standard 26 in. height 470 213 37 in. height 505 229 30 in. height 575 261 41 in. height 610 277 PACKAGING	Humiditrol+ Dehumidification Option (Net Weight)	50	23
Hybrid Roof Curbs, Downflow 8 in. height 75 34 14 in. height 105 48 18 in. height 125 57 24 in. height 155 70 Adjustable Pitch Curb, Downflow 14 in. height 262 119 Horizontal, Standard 26 in. height 470 213 37 in. height 505 229 30 in. height 575 261 41 in. height 610 277 PACKAGING			
8 in. height 75 34 14 in. height 105 48 18 in. height 125 57 24 in. height 155 70 Adjustable Pitch Curb, Downflow 14 in. height 262 119 Horizontal, Standard 26 in. height 470 213 37 in. height 505 229 30 in. height 575 261 41 in. height 610 277 PACKAGING			
14 in. height 105 48 18 in. height 125 57 24 in. height 155 70 Adjustable Pitch Curb, Downflow 14 in. height 262 119 Horizontal, Standard 26 in. height 470 213 37 in. height 505 229 30 in. height 575 261 41 in. height 610 277 PACKAGING	<u> </u>	75	34
18 in. height 125 57 24 in. height 155 70 Adjustable Pitch Curb, Downflow 14 in. height 262 119 Horizontal, Standard 26 in. height 470 213 37 in. height 505 229 30 in. height 575 261 41 in. height 610 277 PACKAGING		105	48
Adjustable Pitch Curb, Downflow 14 in. height 262 119 Horizontal, Standard 26 in. height 470 213 37 in. height 505 229 30 in. height 575 261 41 in. height 610 277 PACKAGING		125	57
14 in. height 262 119 Horizontal, Standard 26 in. height 470 213 37 in. height 505 229 30 in. height 575 261 41 in. height 610 277 PACKAGING	24 in. height	155	70
Horizontal, Standard 26 in. height 470 213 37 in. height 505 229 30 in. height 575 261 41 in. height 610 277 PACKAGING	Adjustable Pitch Curb, Downflow		
26 in. height 470 213 37 in. height 505 229 30 in. height 575 261 41 in. height 610 277 PACKAGING	14 in. height	262	119
37 in. height 505 229 30 in. height 575 261 41 in. height 610 277 PACKAGING	Horizontal, Standard		
30 in. height 575 261 41 in. height 610 277 PACKAGING	26 in. height	470	213
41 in. height 610 277 PACKAGING	37 in. height	505	229
PACKAGING	30 in. height	575	261
	41 in. height	610	277
LTL Packaging (less than truck load) 310 141	PACKAGING		
	LTL Packaging (less than truck load)	310	141

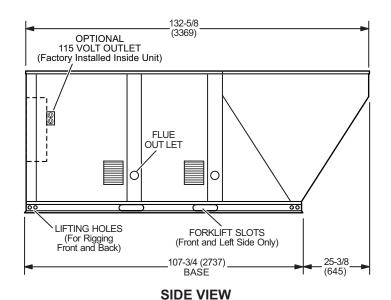
DIMENSIONS LGM156 | LGM180 **CORNER WEIGHTS CENTER OF GRAVITY** BB CC DD Model No. AA EE FF lbs. kg lbs. kg lbs. kg lbs. kg in. mm in. mm LGM156 Base Unit 492 223 483 219 627 284 639 290 53-3/8 1356 39-5/8 1006 LGM156 Max. Unit 609 276 568 258 657 298 705 320 52 1321 42-1/4 1073 630 39-1/2 LGM180 Base Unit 493 224 482 219 286 645 292 53-1/4 1353 1003 LGM180 Max. Unit 611 277 568 257 660 299 711 323 51-7/8 1318 42-1/8 1070

Base Unit - The unit with NO INTERNAL OPTIONS.

Max. Unit - The unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust Fans, Controls, etc.). Does not include accessories external to unit.



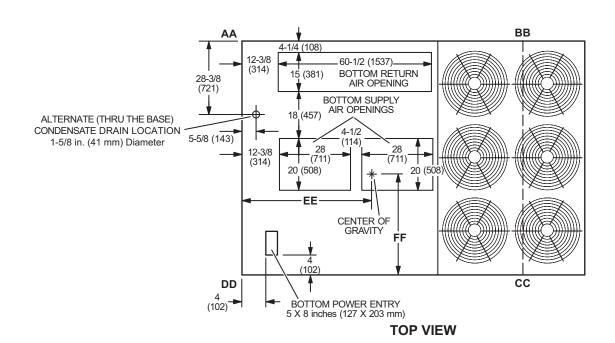
90-1/8 **OPTIONAL** (2289)DISCONNECT (Factory Installed) 51 (1295) **GAS SUPPLY** INLET (102)CONDENSATE 54-1/4 DRAIN SIDE (1378)**ELECTRICAL** 000 10-1/4 5-3/8 (260)INLETS (137)GAS SUPPLY OUTLET 28-3/4 8-1/4 (730) (For Bottom (210)3-1/4 Gas Supply Only) (83)91-1/8 (2315) BASE **END VIEW**

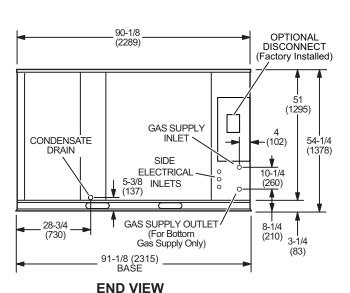


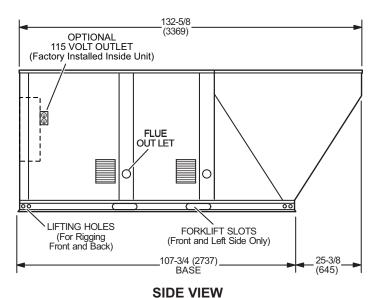
DIMENSIONS - UNIT LGM210 | LGM240 | LGM300 **CORNER WEIGHTS CENTER OF GRAVITY** CC DD Model No. AA BB EE FF lbs. kg lbs. kg lbs. kg lbs. kg in. mm in. mm LGM210 Base Unit 486 221 502 228 702 318 680 308 54-3/4 1391 38 965 LGM210 Max. Unit 598 271 592 269 736 334 743 337 53-5/8 1362 40-5/8 1032 1416 546 LGM240 Base Unit 509 231 247 758 344 707 321 55-3/4 38-1/8 968 LGM240 Max. Unit 622 282 639 290 790 358 769 349 54-5/8 1387 40-3/4 1035 LGM300 Base Unit 513 233 548 248 779 353 730 331 55-5/8 1413 37-5/8 956 LGM300 Max. Unit 626 284 641 291 810 368 792 359 54-1/2 1384 40-1/4 1022

Base Unit - The unit with NO INTERNAL OPTIONS.

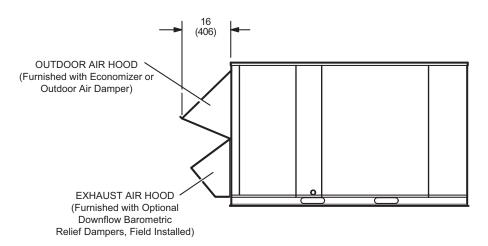
Max. Unit - The unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust Fans, Controls, etc.). Does not include accessories external to unit.





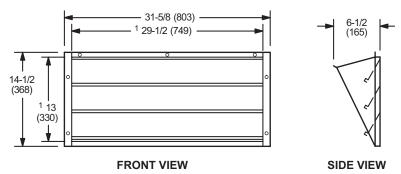


OUTDOOR AIR HOOD DETAIL



OPTIONAL HORIZONTAL BAROMETRIC RELIEF DAMPERS WITH HOOD

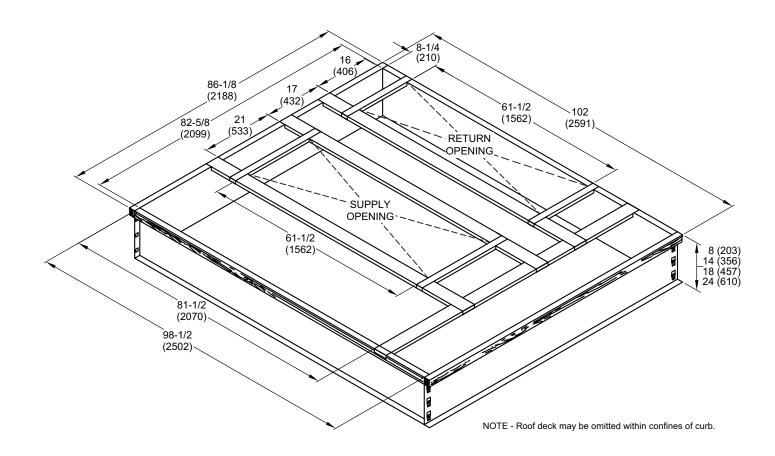
(Field installed in horizontal return air duct adjacent to unit)



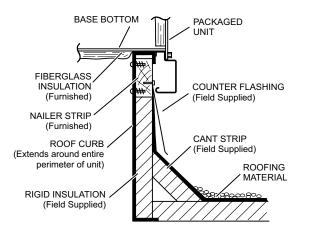
NOTE - Two furnished per order no.

¹ NOTE - Opening size required in return air duct.

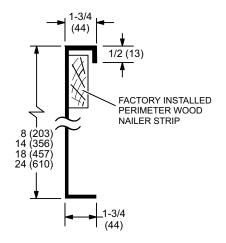
HYBRID ROOF CURBS - DOUBLE DUCT OPENING



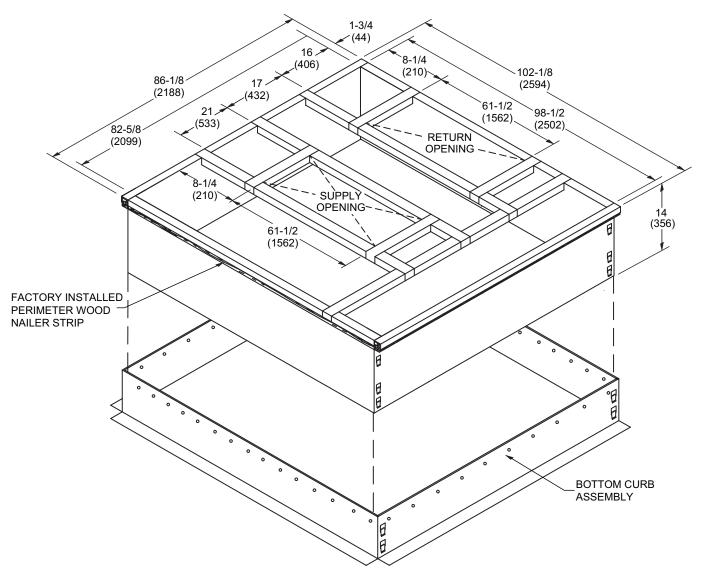
TYPICAL FLASHING DETAIL FOR ROOF CURB



DETAIL ROOF CURB

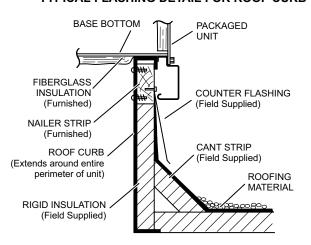


ADJUSTABLE PITCH CURB - DOUBLE DUCT OPENING

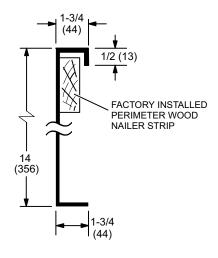


NOTE - Maximum slope pitch is 3/4 in. per 1 foot (19 mm per 305 mm) in any one direction.

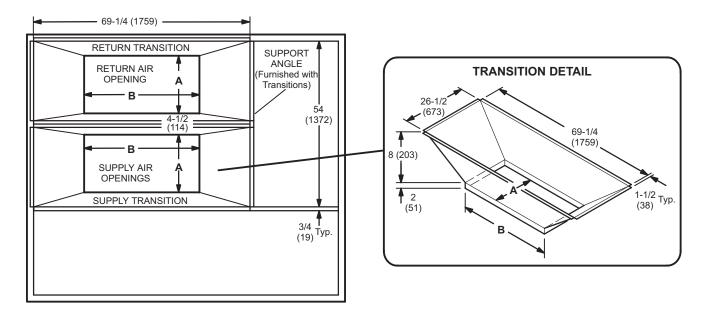
TYPICAL FLASHING DETAIL FOR ROOF CURB



DETAIL ROOF CURB



ROOF CURBS WITH SUPPLY & RETURN AIR TRANSITIONS FOR CEILING DIFFUSERS

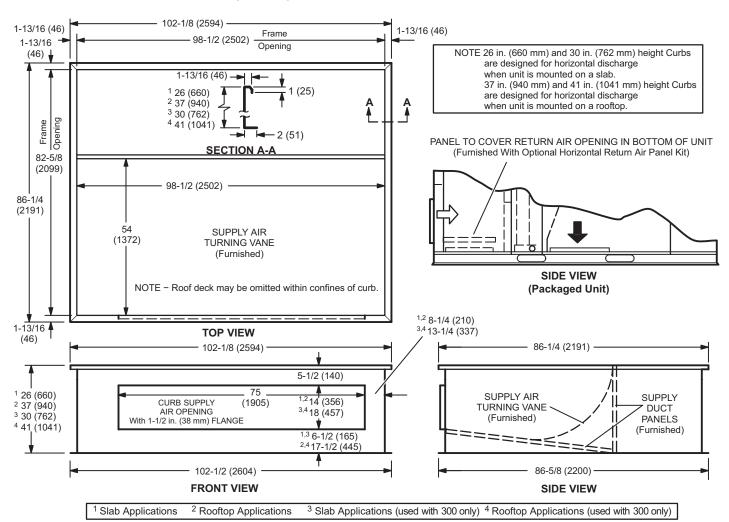


TOP VIEW

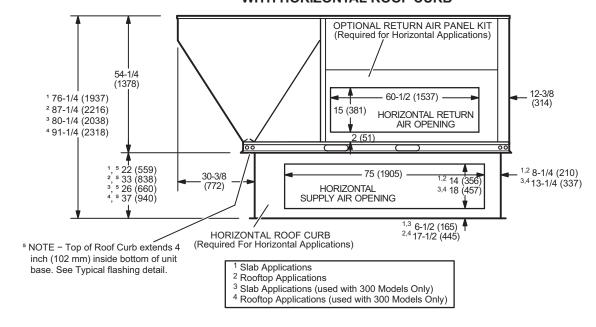
TRANSITION OPENING SIZES

	Model	1	4	В		
	Number	inch	mm	inch	mm	
	C1DIFF33C-1	18	457	36	914	
Ī	C1DIFF34C-1	24	610	48	1219	

HORIZONTAL ROOF CURBS - Requires Optional Horizontal Return Air Panel Kit

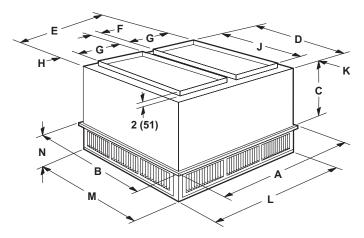


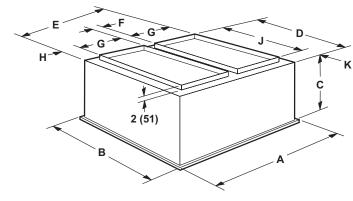
HORIZONTAL SUPPLY AND RETURN AIR OPENINGS WITH HORIZONTAL ROOF CURB



COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS STEP-DOWN CEILING DIFFUSER FLUS

FLUSH CEILING DIFFUSER





Model Number		RTD11-185S	RTD11-275S	
Α	in.	47-5/8	59-5/8	
	mm	1210	1514	
В	in.	47-5/8	59-5/8	
	mm	1210	1514	
С	in.	24-5/8	30-5/8	
	mm	625	778	
D	in.	45-1/2	57-1/2	
	mm	1156	1461	
E	in.	45-1/2	57-1/2	
	mm	1156	1461	
F	in.	4-1/2	4-1/2	
	mm	114	114	
G	in.	18	24	
	mm	457	610	
Н	in.	2-1/2	2-1/2	
	mm	64	64	
J	in.	36	48	
	mm	914	1219	
K	in.	4-3/4	4-3/4	
	mm	121	121	
L	in.	45-1/2	57-1/2	
	mm	1156	1461	
M	in.	45-1/2	57-1/2	
	mm	1156	1461	
N	in.	10-1/8	11-1/8	
	mm	257	283	
Duct Size	in.	18 x 36	24 x 48	
	mm	457 x 914	610 x 1219	

Model Numbe	r	FD11-185S	FD11-275S
Α	in.	47-5/8	59-5/8
	mm	1210	1514
В	in.	47-5/8	59-5/8
	mm	1210	1514
С	in.	29-1/4	35-1/4
	mm	743	895
D	in.	45	57
	mm	1143	1148
E	in.	45	57
	mm	1143	1448
F	in.	4-1/2	4-1/2
	mm	114	114
G	in.	18	24
	mm	457	610
Н	in.	2-1/4	2-1/4
	mm	57	57
J	in.	36	48
	mm	914	1219
K	in.	4-1/2	4-1/2
	mm	114	114
Duct Size	in.	18 x 36	24 x 48
	mm	457 x 914	610 x 1219













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